THE

FARMER'S MAGAZINE:

MONDAY, JANUARY 6. 1800.

(No. I.)

INTRODUCTION.

AGRICULTURE is of such antiquity, as to be coeval with the first formation of Society. Accordingly, in the remotest ages, and amongst every people of whom we have any authentic history, we find the cultivation of the earth forming the principal employment of the inhabitants, and by all of them held in such veneration, as to have its origin ascribed to some deity or other. The Egyptians ascribe it to *Osiris*, the Phœnicians to *Dagon*, the Greeks to *Bacchus*, and the Chinese to *Fo-hi*.

Though we are destitute of authentic materials, to enable us to speak, with any degree of certainty, as to the wants of men in the rudest ages, or the means of supplying them, we have good reason to believe, that their sustenance was derived chiefly from the forest, the ocean, and the milk and flesh of the few domestic animals of which they were then in possession; accordingly, we find, that the districts abounding with fish, game, and pasture, were peopled, and became the abodes of men, long before any other. It is impossible even to form a conjecture how long men continued in this situation; probably it lasted many ages; indeed there are many nations, who, at the present time, have no better resources.

It is obvious that, even in the most fortunate of these situations, many circumstances would concur to diminish, or even entirely to cut off, the usual supply. The fisher, for instance, whose sole dependence, for his own and his family's subsistence, rested upon his success in fishing, and was prevented,

vented, either by a long continuance of stormy weather, or the fish forsaking the coast, from procuring what was necessary, must have suffered uncommon distress, and been reduced to the necessity either of removing to a different part of the coast, or attempting to procure subsistence in some other way: The unsuccessful hunter, and he who depended upon the produce of his flocks, from a scarcity of pasture, or diseases attacking the animal, would be in no better a situation.

The failure of any, or all of these resources, must not only have occasioned uncommon distress upon many occasions, but cost many lives, and operated to the almost entire extinction of the human race. It is obvious, that such a state must not only have been extremely unfavourable to population, but highly inimical to the introduction of any of the arts connected with the immediate and indispensible comforts of society. As a proof of this, we find, at this day, the nations who live in the manner above described, without arts, and very thinly inhabited; indeed, the population of many of the Indian nations of North America has decreased considerably within the last thirty years.

Frequent calamities, of the kind we have mentioned, would naturally lead men to seek after articles of food that could be procured with more ease, and, at the same time, afford a permanent supply throughout the whole year: perhaps the discovery of curing fish and the flesh of animals, with salt, or otherwise, was the first step towards securing a stock of winter food in these rude ages *; and, certainly, to people formerly unacquainted with the art of preserving these articles, it was no inconsiderable advance towards the improvement of their condition.

Amongst

* The Esquimaux, and many of the tribes who inhabit the sea coast, even to the southward of them, have no other food in summer but small fish, and the flesh of whales, seals, &c. a part of which they cure during that season, and eat it with train oil through the winter.

Amongst a people unacquainted with the means of multiplying and rearing domestic animals to the proper extent, there must, even though they were possessed of the art of curing their flesh, have been a deficiency of food, which would, as population increased, become every day more apparent, and prompt them to search for other articles. The different kinds of fruit and herbs would, in all probability, be first had recourse to, and would form no inconsiderable addition to their former resources. They would also soon perceive, that both the milk and flesh of their animals were improved by good feeding during the winter This would naturally lead to the cutting and preserving of green herbage for that purpose: hence the origin of *hay*.

The cultivation of grain, and the other vegetables now in use, belongs to a more advanced period of society, and many ages must have elapsed, before men, who were destitute of any other helps than those derived from experience and observation, could attain even an imperfect knowledge of Agriculture. The sacred writings inform us that NOAH understood Husbandry, of course he taught it to his descendents; and, as it is one of those arts which, when once known, the wants of men will for ever prevent from being lost, we may naturally conclude, that it has continued its course, with various progress, from that period, down to the present day: Many circumstances have, no doubt, contributed to favour that progress in some situations, and retard it in others. The history of the Egyptians, Babylonians, Phœnicians, and many other ancient nations, also informs us, that they were well acquainted with Agriculture. The pretensions of the Chinese go still farther back; they claim, and not without some foundation, the precedence of all the countries we have mentioned. Husbandry, without question, flourished in China at a very early period, and was then deemed of such importance, and held in such respect, as to claim the first, and indeed the principal attention of the government. The Emperors, in order to impress all orders of the community with proper ideas of its importance, condescended, once a-year, to hold the plough, in presence of their chief nobility, the great officers of state, and

the whole inhabitants of the capital: a custom that is still kept up, and deserves to be imitated by all sovereigns *.

At a period so remote as the present, and without the means of correct information, it is a difficult task to ascertain to which of these countries the preference is due. The most probable conjecture is, that each of them is entitled to a share, and that the agricultural knowledge, of which they were then in possession, in place of belonging exclusively to any one, was the united stock of the whole. Indeed, if we reason from what we know, and compare modern with ancient times, we will be satisfied that this was actually the case. The husbandry of Britain, originally rude and imperfect, has arrived by degrees at its present state: this, however, has not been owing to the superior skill, or the successful practice, of any particular county or district, but to the united talents and industry of the whole. Is there any reason to doubt that this was the case with the ancients? Be that as it may, we certainly derived the rudiments of the art from that quarter; and though, in the west of Europe, and especially in Britain, it has attained a high degree of perfection, truth, and a just sense of the benefits resulting from its introduction, oblige us to acknowledge the East as the school in which the first principles were taught.

Of the slow progress of Agriculture, and the difficulties encountered in the first attempts to cultivate the earth, we may form

* In this place it may be proper to observe, that the long duration of the Chinese empire, and form of government, which has no equal in history, as also the riches and prosperity of that country, are to be ascribed in a great measure, if not entirely, to the perfection of their Agriculture, and the ample supply of every necessary of life thereby produced. Their rural economy being of the most minute and perfect kind, demands the labour of a number of hands, greatly exceeding what are employed in almost any other part of the world. The produce, however, is great in proportion; and at this day it is computed, that nearly seven eighths of the inhabitants of China are artizans, and owe the necessaries of life to the labour of the remainder; this great majority being employed in arts, manufactures, and commerce.

form some idea. The instruments originally made use of were, undoubtedly, very rude, and such as could be managed by the hand only, perhaps similar to our spade and hoe. The want of metals, together with their ignorance of the use of them, especially iron, would occasion these instruments to be constructed of hard wood. Agriculture, under such circumstances, must have been attended with a degree of personal labour, of which, in our present improved state, we can form but a very imperfect idea.

Laborious as these operations were, and low and abject as the state of human nature must have been, there is a circumstance, connected with their history, strongly descriptive of the benefits arising from the united powers of men, even in the rudest ages; and from which we may date all the advantages enjoyed in the most improved state of civil society.

We are told, that, in ancient times, (and the example of several nations, at this day, leaves little room to doubt the fact) the whole soil was cultivated for the general benefit, every member of the community being obliged to contribute his personal labour and assistance during the seed-time and harvest; in return for which, a due proportion of the produce was assigned him. Perhaps one cause of this would arise from the lazy indolent members of the community neglecting to cultivate a sufficiency of food for themselves and families, and by that means becoming a burden upon the industry of the rest. It is, however, probable that the most powerful motive for this union was owing to another cause.

It requires slender experience to convince men, in any stage of society, that the united strength of the whole exceeds, in a very uncommon proportion, the solitary unassisted exertions of individual labour. The fable of the bundle of rods, so expressive, and now so familiar, undoubtedly belongs to that period, and must have forced itself upon the notice of every mind capable of observation. Without all question, the collected talents and exertions of the individuals of which any community is composed, constitutes a common stock, from whence the happiness and comfort of the whole are derived. Any system, therefore, that was calculated to

bring these into action, must, by stimulating the indolent to exertion, have removed a load from the great body, and established a balance between the labours and comforts of the whole.

But, to return to the subject, many instances can be adduced of the imperfection of the instruments originally used in Husbandry, and the ignorance of the first cultivators. At a period so near our own times as the conquest of Peru, the inhabitants of that devoted country were found by the Spaniards in the situation we have described; every thing was done by manual labour, without any assistance from beasts of draught or burden; they turned over the earth with an instrument resembling our shovel, and afterwards dibbled in the grain; even now there are many nations whose knowledge of Agriculture is not greater. The inhabitants of Chili make use of a piece of wood, of a crooked shape, something like our plough, with which they turn over the soil; the seed is then sown and covered, by dragging bushes over it in place of harrows. In the province of Lithuania, a part of ancient Poland, their plough is of the same rude construction; and in many other parts of the Russian empire they are in possession of no better instruments. To come nearer home, the ploughs of the Shetland and Faro Isles, and of Ireland, are as bad, and their Agriculture equally imperfect.

The instruments originally used, and such as we have now described them, no doubt, went through all the different gradations, from the coarsest wooden shovel to the plough; that instrument was used by the Egyptians at a very early period, it was also used by the Babylonians, the Phœnicians, and Greeks, and was well known in Palestine: the other instruments used in Agriculture would follow, as a matter of course; these, in their original state, must also have been extremely rude, and much time, and great labour required, before men were able to perfect what was necessary for harrowing, threshing, and separating the grain from the chaff; and, lastly, of grinding it into meal. It would appear, that Agriculture had proceeded considerably to the westward, before it arrived at much perfection; it was reserved for the shores of the Mediterranean

diterranean to furnish posterity with the pleasing picture of a perfect Husbandry.

Italy, and the northern coasts of Africa, were, for ages, the favourite seats of cultivation, and the granary of the Roman empire; and, while that people we extending their dominion almost to the limits of the then known world, the bread-corn, and almost every other article of subsistence, necessary to the support of their numerous legions, were drawn from these parts. The perusal of Virgil's Georgics affords an undeniable testimony of the perfection of the Italian husbandry. In that interesting work, the wheel-plough, the barrow, the flail, the scythe, the reaping-hook, together with every other instrument now in use, are accurately described, as also the system of cultivation pursued. Considering the period at which Virgil penned his Georgics, and the great difference of climate between Italy and Britain, the similarity between the system he lays down, and our modern husbandry, is astonishing. Fallowing and irrigation, with their benefits, are particularly described, as are also the advantages arising from alternate green and white crops: His account of the management of the different kinds of domestic animals, is equally beautiful and correct.

To those who are capable of tracing effects to their proper causes, the advantages produced by the Roman conquests will be strikingly obvious; and, though at that time their legions must have been considered as the scourges of the human race, by the people amongst whom they came, the lapse of ages, and the amelioration of the human condition, enables us to view them in a different light. The ploughman of Italy, when he became a soldier, and was sent into Gaul or Britain, would neither forget his original employment, nor the comfort he would derive from practising it in the country where he was stationed. The troops, kept by Rome in the distant provinces, were seldom relieved by others from Italy, and as seldom shifted from the stations where they were first placed; in that way, their residence became in a great measure permanent; a circumstance extremely favourable, not only to the introduction, but the perfecting of Agriculture.—The first

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attempts would no doubt be made to cultivate the hardiest of the Italian plants; a conviction that these could be matured in Britain, would lead them to introduce others more delicate; the natives of the country, struck with these advantages, would soon learn to imitate an example that promised so materially to better their situation: The same thing would happen with regard to the other arts, which, by the time the Roman forces were finally withdrawn from Britain, had made such progress, as to place the country in a situation enviable, when compared to what it was before the conquest.

From that æra we may with justice date the introduction of every thing connected either with the comfort or the elegance of life. In the savage state, and even in the first stages of civilization, the labour and exertions of every individual must have been required, during the whole year, to procure a scanty and precarious subsistence, barely sufficient to prolong a wretched existence: circumstances so adverse must, as has been already observed, not only have operated as a bar to the introduction of other arts, but chilled and rendered torpid every faculty of the human mind. Man, so situated, discovers little of those rational powers, by which, in the more advanced stages of society, he is so eminently distinguished. It is only in situations where the means of subsistence are ample, where the labour of a certain part of the community is sufficient to provide the necessaries of life for the whole, and where a considerable proportion of the remainder are placed beyond the necessity of toiling to procure the first necessaries of life, that the powers of the mind develope themselves; mental exertion and much bodily labour having, in almost every instance, been found incompatible, especially in cases where the sole support of the individual depends upon that labour. Accordingly, in the inferior walks of life, where the individuals have received little or no original education, and have, from their infancy, been doomed to a laborious employment, which has occupied the greatest part of their time, we meet with innumerable instances where the rational powers are nearly extinguished, and the individual, from never having been accustomed to think, and excessive hard labour, reduced

reduced to a mere machine, and in a situation little above that of the irrational animals.

To the introduction of Agriculture we are indebted for that dignified place now held by man in the scale of created beings. By having his subsistence secured, without the necessity of bodily labour, his solicitude has been in a great measure removed, and the powers of his mind allowed to expand, and raise him to that situation he was originally intended to fill. The same thing may be said of the other arts of peace: from the period that Agriculture came to be so well understood, as to enable a part to raise corn and other necessaries for the support of the whole, the attention of the remainder would be directed to other pursuits. There is a natural propensity in man to aspire to something beyond what he possesses at the time. The first wants of life being once supplied, and a permanent provision made for them, new desires would be felt; warm clothing, and comfortable habitations, would be the first in order: fine clothes, and other elegancies, would follow in succession; together with science, literature, and the fine arts.

These new wants and desires, in many respects so different from the real wants and natural desires of man in his original state, have, in their progress, gradually produced such a change on the face of society, as none but those who have had an opportunity of perusing ancient history could believe. While a proportion only of the population is now required to provide the necessaries of life for the whole, the remainder are employed in arts, manufactures, and commerce, and in cultivating the sciences. To trace the progress of any, or all of these, does not belong to a sketch like the present; which has for its object only a delineation of the origin and progress of Agriculture, and its inseparable connection with the comfort and happiness of the human race.

Hitherto it has been taken in a general sense, and its effects, as far as they have had a tendency to better the situation of mankind, have only been noticed. Taking it in another point of view, as connected with national wealth and greatness, it assumes a high degree of importance, and claims, in the present state of Europe, the most distinguished attention

tion from every well-regulated government. It requires slender knowledge of the present state of society, to convince any one that, without Agriculture, Manufactures, and Commerce, no nation can be either great, populous, rich, or happy. Agriculture, however, is the foundation upon which the other parts of national greatness rest; without it, none of the others can have place. Indeed, in taking a survey of the different states of Europe, it may be assumed, as a principle, that the nation most distinguished for an extended and successful Agriculture, holds the highest place in the scale. The cause is obvious: In countries where grain and other vivres are plenty and cheap, the lower orders of the community marry early in life, and have numerous families; the population, and the number of hands necessary for carrying on arts, manufactures, and commerce, is by that means increased; and as in every situation the price of labour bears an exact proportion to that of bread and other necessaries, it never fails to follow, that, in every country where these are abundant, the manufacturer is enabled to bring his commodities to market at an easy rate, and in that way to undersell the merchant or manufacturer of another country, where living is more expensive, and, of course, the price of labour higher. Britain, at this moment, furnishes a striking example in support of this truth. Much of the preference given to British commodities in foreign countries is, no doubt, owing to the skill of our tradesmen, and the excellence of their workmanship; but, when to that is added, the cheapness of the articles, and their superiority over every other, the preference they meet with in all quarters of the world, will excite no surprize; and as that circumstance enables us to supply other nations with articles of much more value than what we need in return, the difference is received in money, which, by giving us a command of resources beyond what is possessed by any other power, enables us to hold the exalted rank we now do in the scale of nations. While our Agriculture continues to flourish, this will be the case; an extension of it, under the fostering hand of Government, which has been already stretched out for that purpose, will increase our independence,

pendence, and make us at once formidable and respectable in the eyes of surrounding nations. To those who preside at the helm of state, the task is easy; and to minds possest of benevolence, like theirs, the gratification is exquisite. To command armies, and direct the operations of war, requires no common degree of courage and firmness of mind: Even with these requisites, unforeseen events may derange the best concerted plans, overwhelm the best cause, and plunge a whole nation into the lowest abyss of misery. The mind, capable of drawing the attention of a numerous people to their true interests, and of reconciling an increased industry with simplicity of manners, and correct morals, meets with a nobler recompence. Conquest and success confer a name that dazzles the world; but it is inferior to that acquired by those who have turned their attention to instructing men in the arts of peace, of directing their pursuits, and endeavouring to increase their happiness. The name of an Alexander has, no doubt, inspired many a romantic mind; but that of any of the rural deities commands a more extensive, as well as a different suffrage. In the one we behold a conqueror, wading through seas of blood, and sacrificing every thing to his ambition; in the other, we contemplate the benevolent care of an affectionate parent, anxious to promote the happiness, and direct the future prospects of his family.

HAVING, in this hasty and imperfect manner, attempted a sketch of the origin and progress of Agriculture, together with the benefits that have resulted from it, we think it necessary to say something of the plan of the present work, and the motives by which those who take an interest in its success are actuated.

The present state of British Agriculture, and the known eminence of many who practise it as a profession, are such as might justly draw upon the individuals who now address the public, the imputation of arrogance, were they to presume to improve the system by any superior knowledge or abilities of their own. They think it necessary, in the outset, to say, that it is not upon their own knowledge and experience they rely for carrying on the work, but upon the communications

nications of respectable and intelligent farmers, who have made Agriculture their particular study; and who, in place of amusing the public with *opinions*, are able to bring forward *facts*, which, under the sanction of *experience*, can be immediately adopted in practice. A want of attention to this fundamental principle has rendered the greatest part of what are termed regular treatises upon Agriculture useless. Many of these have been drawn up by individuals, who, from having resided during the whole, or the greatest part of their lives, in particular districts, have formed opinions, and imbibed prejudices, in many respects hostile to the cause they profess to promote. Such authors, in general, discover more anxiety for the fate of their own opinions, than for the advancement of knowledge, and, in place of selecting facts for the basis of their works, and, reasoning from these, their solicitude to form systems of their own, has led them to bend facts to theories, and involve themselves in perplexity and error. In that way, society, in place of being benefited by their labours, is plagued and misled by their controversy; and, instead of a true picture of the husbandry, either of a district or the kingdom at large, we meet with little more than the opinions of the author, clogged with his prejudices, and a laborious attempt to form a system suitable to these.

To the genius of a few respectable characters we are indebted for a better system, founded upon experiment and attentive observation: a channel through which alone just ideas can be acquired, either upon this, or any other subject. Accordingly, of late years, many of the speculative opinions, with which we were formerly amused, have given way to the simple unerring truths taught by experience; and though much labour and investigation still remain, we have the satisfaction of knowing, that the path hitherto traced is upon solid ground; and are enabled to look forward, with confidence, to a period, (perhaps not a distant one), when the system will be much more perfect, and our doubts less numerous, upon many points of the first importance to Agriculture: that, however, is to be accomplished, not by the propagation of fanciful opinions, but by details of successful practice, and

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in all cases having an example ready at hand to illustrate our precept.

It is well known, that, upon subjects purely speculative, where no experiments can be made, and of course no absolute certainty obtained, much diversity of opinion is met with, which, from their nature, might be expected, and will for ever be the case. The person who reasons best upon such subjects, will, in the opinion of men of sense, be thought to come nearest the truth, and his doctrine considered the standard, till some competitor appear, whose reasoning is more persuasive. This has been the fate of all speculative opinions since the earliest ages, and will continue to be so, upon every subject that affords no certain data to direct the research of enquirers. Converts, amongst enlightened farmers, are not to be gained by theories and opinions: before we lay claim to their belief, the principles upon which our own is founded ought to be explained in a satisfactory manner, and that, not by reasoning alone, but the evidence of facts. Upon the present subject, this is in a great measure in our power, as most of the important points connected with Agriculture admit of being illustrated by experiments. One fact, so established, is superior to a thousand arguments; and, instead of being liable to change, as all opinions unsupported by facts must be, it serves as an unerring guide; and, instead of an opinion, assumes the name and importance of a principle. Were this system uniformly pursued, were men only to relate facts, and communicate their discoveries in the language of truth and plain sense, to place them in the common stock, and allow time and experience to form a whole from these parts; agricultural science would soon assume a more perfect form; authors would have no ill-founded opinions to retract or defend; pride and error would be no longer opposed to truth, and the progress towards perfection would be certain and uniform.

With this maxim before them, the promoters of the present undertaking beg leave to assure the Public, that it shall be their study to encourage and promote, as far as possible, a spirit of enquiry and experiment amongst agricultural men,

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and to record faithfully the result of such information as may be communicated to them. Of these inquiries and experiments some idea may be formed from a perusal of the Queries published in the present number, to which they entreat the attention of all intelligent farmers, whose communications will be received with thankfulness, and have all due attention paid them. One thing it is necessary to notice: Many farmers, from a diffidence of themselves, are withheld from communicating their observations to the public, from an apprehension, that their style and manner of writing are unfit for publication: In that way, many facts and observations, highly interesting to society, are either entirely lost, or but very partially known. To such we beg leave to say, that, provided facts, properly authenticated, and sound observations, are furnished, the style of the author will be considered as a matter of inferior consideration. For reasons that will appear obvious, the present Number cannot be considered as a fair specimen of the work; the intention of publishing being known only to a few, and the short time that has elapsed, since it was first announced, having prevented several valuable papers from being brought forward. It is however hoped, that enough has been said to explain the nature of the undertaking, and the intentions of those who promote it, and who have no other interest in its success than what arises from a wish to render it useful to the community.

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FARMER'S MAGAZINE:

MONDAY, JANUARY 20. 1800.

(N°. I.)

PART I.

ORIGINAL COMMUNICATIONS.

FOR THE FARMER'S MAGAZINE.

Observations upon the additional Statistical Account of the Parish of HOUNAM, *Roxburghshire.*

" The whole body of persons in a country, whose abilities are applied to un-
" fruitful employments, are exactly the same as if they were not in being; their
" negative existence is even a heavy burthen to the country, as every individual
" who only consumes, requires a productive individual whose labour must en-
" sure the existence of the former." *Tooke's View of the Russian Empire.*

IT has been a principle assumed by a great number of the Clergy, that *large farms*, or, in other words, that an accumulation of farms, in the hand of one person, is unfavourable to population; and this, except in a few instances, they have taken for granted, without offering a proof. In the 21st volume of the Statistical Account of Scotland, p. 10th, some additional observations, by the Rev. Mr *James Rutherford*, are made to his former account of the parish of Hounam; and we select the following passages, p. 16. et seq. upon which we mean to make our remarks.

" The great and most obvious cause of the decrease of the inhabitants, within the last thirty or forty years, is owing to the (perhaps too general) practice of letting the lands in great farms, and to the mode of agriculture now almost universally adopted, especially since sheep and wool brought so high a price, of laying down the whole lands in grass. The lands formerly, from 40 to 100 years back, were parcelled out into four times, at least, the present number of farms: there was also much of these farms in tillage: and consequently a greater number of people could be maintained, and more hands would be necessary for carrying on the labour of the lands. So late as the year 1756, there were no fewer than seven tenants, with large families, on the lands of Hounam, now all rented by one tenant, who employs only one

ſhepherd. There were alſo ſeveral ſmall lairds: their lands are loſt in the large farms, their names extinguiſhed, and their manſions confounded in the duſt.

"Though this laſt cauſe operates moſt ſtrongly in depopulating the pariſhes where the monopoly of farms is frequent, yet it is by ſome made a queſtion, Whether it tends to depopulate the country at large in any great meaſure? No doubt, the towns and villages will increaſe as the country pariſhes diminiſh; and therefore, in this diſtrict, the villages of Yetholm and Morbattle have of late conſiderably augmented in the number of inhabitants and houſes; yet it does not ſeem to be in the ſame proportion as the country diſtricts around them have diminiſhed. In this pariſh, where the real rent is L. 2720, were the farms four times the preſent number, namely 56, or the lands divided into farms of L. 50 each, which would amount to much the ſame number, at leaſt 54, in this caſe there would be fifty-four or fifty-ſix tenants in the pariſh, inſtead of fourteen, the preſent number; and each of whom might have a large family of his own, and employ a ſhepherd, who might alſo have a family; and the other inhabitants and cottagers might be the ſame in number as at preſent. This, ſurely, would make a prodigious odds in favour of the population of the pariſh, and afford alſo a ſufficient extra number who would find it neceſſary to withdraw to the towns and villages. Country places, too, are more favourable than towns to the rearing of young children: here they are healthier, and thrive better.—Beſides, hinds and ſhepherds, driven from their native abodes and manner of life, will be diſheartened, and diſcouraged from marrying: it will be with difficulty they can afterwards find the means of ſubſiſtence. It is obſervable, that in England, which is far more populous and richer than Scotland, the monoply of farms is little known. In many places of Scotland, particularly the diſtrict to which Hounam belongs, a ſingle individual has not only united four or five farms into one, in one pariſh, but has ſeveral farms united in this manner, in different pariſhes. Theſe circumſtances taken together ſurely make it very evident, that the monopoly of farms, and increaſe of paſturage, is a great injury to the population of the country at large."

The cauſes above aſſigned for the decreaſe of population, viz. The practice of letting the land in great farms, and the mode of agriculture adopted, of laying down the whole lands into graſs, are obviouſly diſtinct and ſeparate, and have no connection with each other; for the land may be let in ſmall farms, and the graſs huſbandry recommended by Mr R. remain; or, it may be continued in tillage, and ſtill large farms be the prevalent practice. It does not follow, that a large farmer ſhould have a greater proportion of graſs than his ſmaller neighbour:—No, this is regulated by inclination, by ſoil, and by the ſtate of markets; and to the two laſt every good farmer will pay particular attention, whatever may be the ſize of his poſſeſſion.

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If the generality of the parish of Hounam can be more profitably employed in raising grass, than under a system of tillage, which we understand to be the case, it may be concluded, without further demonstration, that the interest of proprietors, the advantage of tenants, and the good of the state, are all concerned in keeping it under that mode of management; because under no other can it make such returns to the proprietor or tenant, or add so much to the national capital. The only question remaining is, How this management is to be carried into effect at the least possible expence, and with the greatest advantage to the public?

In every grass farm, we mean farms where sheep are bred, practical men know well, that, to attain perfect management, it is necessary to have different *hirsels*, or flocks, so as the old and young, the wedders and ewes, may each be fed upon the ground most proper for their growth and constitution. This of course requires that a sheep farm should be of considerable extent, otherwise the profit of the flock, instead of paying the landlord an adequate rent, or supporting the tenant in a suitable manner, would be consumed by the wages of numerous idle shepherds, for whom there would not be half employment.

It has long been held as an axiom, that, to make manufactures flourish, it is necessary to simplify labour as much as possible, and by the aid of machinery to carry on work at the smallest expence. This, if applied to agriculture, which several political writers have considered as the first of manufactures, it must be admitted, that the system of management which makes the greatest return at the least charge, is the one most consistent with the welfare of those engaged in that profession. We have already said, that the sheep husbandry appears most adapted to the soil and climate of this parish; and, from what is mentioned above, it follows, that, as this husbandry can only be carried on with advantage where the farms are of sufficient extent to provide for different hirsels or flocks; consequently, that small farms, under these circumstances, are a certain loss to the landlord, unprofitable to the tenant, and detrimental to the public good, as they do not admit the same justice to be given to the feeding of sheep, as those of a greater size.

This brings us to the point at issue:—The proper size of a sheep farm. It is evident the answer must always be regulated by the nature of the soil, the kind of sheep kept, the facility of raising winter crops for the support of the stock, and by other material circumstances. One general answer, however, may be given, viz. That in no part of the south of Scotland, since rents rose to their present pitch, can a farm of 200l. rent be called too large. We should rather be inclined to think such a one too small for a stock farm, more so if any

one part of it is employed in raiſing hay or winter crops for ſupporting the ſheep during inclement weather. The rent of Hounam is ſtated to be 2700l., which allows it to be divided into 13 or 14 farms, of ſuch a ſize as can be managed in a way that will at once prove beneficial to the individuals concerned, and to the community.

In this place Mr Rutherford objects:—By farms of this ſize you decreaſe the population of the country, which would be benefitted and increaſed conſiderably by dividing each of them into four. This objection does not touch upon the enquiry,—Whether theſe 56 farmers will pay as much rent to the proprietor?—Whether they and their families will live in the like comfortable manner?—and, Whether the national ſtock will be equally benefitted, or the like quantity of food provided to the public by their labours (which we look upon as of the firſt importance)—as will be done by thoſe of the other deſcription?

Theſe points are paſſed over, and the number of inhabitants upon the premiſes is ſuppoſed to be the ſole criterion by which the management is to be judged.

Were this admitted as the ſtandard, every improvement in machinery, for facilitating labour, would be cenſured and condemned. The threſhing machine, for inſtance, which is deſervedly ranked amongſt our moſt uſeful improvements, ought to be deſtroyed; ſpinning machines, ſaw mills, and numberleſs other contrivances to diminiſh manual labour, would deſerve to be conſidered as ruinous and deſtructive, upon the ſuppoſition of their having a tendency to depopulate the country.

There is certainly a miſchievous, as well as a uſeful population. We call uſeful, what is neceſſary for carrying on the trade, labour, manufactures, &c. of the country; but where more inhabitants are to be found than thoſe that can live, or, in other words, procure employment, we are certainly warranted to claſs them under the other deſcription. An increaſe of population, without an increaſe of reſources, muſt always be conſidered as hurtful. But as Mr R. wiſhes to fritter down the farms of his pariſh, in order to increaſe population, what would he think of dividing the *cure*?—a meaſure that would in all probability add ſeveral more families to the population. This idea, however ridiculous it may appear, is exactly in point with the reduction of farms; but, as we believe he is perfectly able to diſcharge the duties of his office without any aſſiſtants, we do not think the public good would be promoted by ſuch an increaſe.

Mr R. ſeems ignorant of his ſubject, when he propoſes to reduce the ſheep farms to the ſize of a 50l. rent: Inſtead of 56 tenants, and 56 ſhepherds, all with large families, the probability is, that there would be only 56 men, who would neceſſarily

ceſſarily be both tenants and ſhepherds, and a great part of them without any family. He ſeems alſo ignorant of the return which a 50l. farm would make to the poſſeſſor, or what would be the work upon it. Were the tenant upon ſuch a farm, under the preſent rents, not to keep his ſheep himſelf, he would be a Gentleman at firſt, having otherwiſe little or nothing to do, and a Beggar afterwards, when his ſtock was exhauſted, which would ſoon happen.

We now offer a few remarks upon the general cauſes which affect population, or occaſion an increaſe at ſome periods, without being followed by an increaſe of trade and manufactures.

The number of people in any country, will, for the moſt part, be regulated by the price of proviſions; with this exception, that if there is a great demand for labour, and wages riſe in a proportional manner, population may progreſſively increaſe, ſo long as the workman can ſupport himſelf and family by his earnings. When labour falls in value, without being accompanied by an equal fall in the price of proviſions, it is a ſure ſign of the decreaſe of trade, in conſequence of which a number of people are thrown out of employment. This occaſions emigrations from one diſtrict to another, perhaps from one country to another; and theſe emigrants ſettle in ſuch places as can give them employment, and where the value of labour is equal to what is required for the ſubſiſtence of themſelves and families.

If all the people born in a pariſh, county, or kingdom, were obliged to reſide in that pariſh, county, or kingdom, where they drew their firſt breath, it is evident the reaſons above aſſigned, as influencing population, would not operate, and that an unneceſſary or miſchievous increaſe would, in many caſes, be the conſequence. The ſurplus, which is conſtantly thrown off from particular diſtricts, where labour is ſcarce and wages low, for the ſupply of other diſtricts, where employment can be got with greater facility, or where the flouriſhing ſtate of trade and manufactures have raiſed the rate of wages, effectually prevents ſuch an increaſe from taking place, and corroborates what we have already mentioned, reſpecting population being at all times regulated by the cheapneſs of proviſions, or, in other words, by the means poſſeſſed for procuring the neceſſaries of life.

The ſcale of population may alſo, at certain times, be locally affected by a cauſe which is ſeldom attended to. Let us ſuppoſe the whole lands in a pariſh the property of one man, and that they are all out of leaſe at one period. The great body of the people in country pariſhes being made up of farmers ſervants, their number, under the above ſuppoſition, may be conſiderably increaſed by a total, or a partial change of tenants,

when the lands are re-let, without the leaſt alteration in the ſize of the farms. The generality of farmers, when they commence buſineſs, prefer young men, or thoſe lately married; hence, for a number of years afterwards ſuch a pariſh will have an increaſed population, and the ſcale will not return to its ordinary level, before the families of thoſe ſervants are able to work, and remove to other parts, where their labour is wanted. We know of ſeveral farms preciſely under theſe circumſtances, and are acquainted with others, where the ſcale of population has been reduced, at particular periods, without the leaſt alteration having happened in the ſize or management of the farm. In ſhort, it is obvious that population may be augmented, or decreaſed, without any of the cauſes aſſigned by the generality of the clergy having operated.

One thing may be alſo noticed, which has probably occaſioned ſeveral of the clergy to think large farms unfriendly to population; that is, the change which has generally taken place in the beſt cultivated counties reſpecting the number of cottagers. As all tenants are taken bound to ſupport and leave the buildings in habitable condition, at the end of their leaſes, and as the expence of repairs is now very great, it is found more eligible to keep up no more than are requiſite for accommodating the ordinary farm-ſervants. Hence mechanics, weavers, taylors, hedgers, ditchers, labourers who work at large, widow women, &c. are now removed to villages, and take employment where they can find it. This, of courſe, has contributed to leſſen the number of people reſident at farm-ſteadings, eſpecially at the large ones, where the claſſes above deſcribed, in former times, uſually reſided, while at the ſame time the population of the pariſh is in no reſpect decreaſed.

The population of Scotland, by the returns in the Statiſtical volumes, appears conſiderably increaſed; and this increaſe, as might be expected, has chiefly taken place in the manufacturing diſtricts, where the value of labour is high, and the demand for hands greateſt. In the counties entirely dependent upon huſbandry, it is obvious population muſt always remain nearly ſtationary, unleſs ſome great and general change take place in the ſyſtem of management, or in the uſual mode of conducting farm-labour. The introduction of two-horſe ploughs had ſomething of this effect, though perhaps not ſo much as was imagined: an increaſe of luxury, by reducing the quantity of arable, and increaſing that of paſture land, may alſo locally affect the population of particular diſtricts. The returns from the agricultural counties, however, ſhew that there is not any material alteration in their population ſince 1755, and in Roxburghſhire it is increaſed.

Upon

Upon the whole, it appears, that the intereſt of the proprietor, the comfort and uſefulneſs of the tenant, and the good of the community, require that ſheep farms ſhould be of conſiderable extent; and that if the ſuggeſtions of Mr R. were reduced to practice, the rent of the landlord, the condition of the tenant, and the advantage of the State, would be leſſened and injured, while no benefit could poſſibly follow; unleſs the number of idle men and women, uſeleſsly living upon the premiſes, and conſuming the produce of the fields and the flocks, could be viewed as ſuch.

We have dwelt longer upon this ſubject than was intended; but we truſt that its importance, and the manner in which it has been diſcuſſed by a majority of the clergy, will be conſidered as a ſufficient apology. *N.*

FOR THE FARMER'S MAGAZINE.

On Manorial Claims.

[*The following interesting essay, on the operation of Manorial Claims, has been transmitted to us by a worthy friend in England, who is intimately acquainted with every branch of Rural Economy, the prosperity of which he justly views as a most important national concern. To our Scotish readers, the subjects here discussed will be almost new, consequently the perusal of this paper cannot fail to afford them much information. While we earnestly wish the removal of these grievances from our southern neighbours, we at the same time exultingly contemplate the constitution of this northern part of the Isle, which has happily ordered matters in a way more conducive to general advantage.*]

It is not the intention of the writer of theſe deſultory hints, to enter much, if at all, into the Origin and Hiſtory of Manorial Claims; but to expreſs a few ideas, as they may ariſe, on the bearings and operation of ſuch claims on the exiſting ſtate of ſociety in this iſland; a ſtate ſurely very different from that in which the origination of manors found it, in regard not only to population, but to tenures and induſtry.

Theſe privileged claims or rights may be conſidered in ſeveral points of view, viz. 1. The Game of the Manor or diſtrict. 2. Suit and Service to Freehold, and more particularly to Copyhold Courts. 3. Mill Sokes. 4. Waſte, or Common lands. 5. Minerals. 6. And laſtly, Courts Leet, and Courts Baron.

1. The *Game of a Manor*, *i. e.* deer, hares, patridges, pheaſants, and moor game or grouſe, &c. was, at a remote period,

conſidered as the property of the Crown, but granted with the manor itſelf to an inferior lord, under the ancient foreſt laws, and has been, for many centuries, a fertile ſource of ſtrife and diſcord to the more ſpirited inhabitants of this and other countries. The regulations concerning this ſubject of legiſlative wiſdom, might ſeem indeed to have been invented with no other view; for though it were not probable that the lord of a manor, ſo granted, would have any diſpute with his ſuperior or granter, yet the opportunities of harraſſing his inferiors, by efforts of petty tyranny, were ſuch, as perpetually to embitter the minds, and indeed ultimately to debaſe the character, of both the oppreſſor and oppreſſed. After a part of the lands within the manors had been alienated ſo generally in fee-ſimple, during the reign of Henry VII. and in ſubſequent times, the purchaſers of ſuch lands, or their heirs, now become freeholders, very naturally conceiving themſelves intereſted in the game, in proportion to their acquiſitions of landed property, except in caſes of free warren; the difficulties of preſerving the monopoly of this object of diverſion and luxury, in the hands of the manorial lords, were much increaſed. Hence aroſe the apparent neceſſity of applying to the Legiſlature for a new code of game laws, the partiality and injuſtice of which are not more glaring than their abſurdity.

This famous code is ably explained by that excellent commentator on the Laws of England, Sir Wm. Blackſtone, in the following words, (Vol. IV. p. 408. 4th edit.) "Another violent alteration of the Engliſh conſtitution conſiſted in the depopulation of whole countries, for the purpoſes of the King's royal diverſion; and ſubjecting both them, and all the ancient foreſts of the kingdom, to the unreaſonable ſeverities of foreſt laws imported from the continent, whereby the ſlaughter of a beaſt was made almoſt as penal as the death of a man. In the Saxon times, though no man was allowed to kill or chace the King's deer, yet he might ſtart any game, purſue and kill it upon his own eſtate. But the rigour of theſe new conſtitutions veſted the ſole property of all the game in England in the King alone; and no man was entitled to diſturb any fowl of the air, or any beaſt of the field, of ſuch kind as were ſpecially reſerved for the royal amuſement of the Sovereign, without expreſs licence from the King by grant of a chaſe or free warren; and thoſe franchiſes were granted, as much with a view to preſerve the breed of animals, as to indulge the ſubject. From a ſimilar principle to which, though the foreſt laws are now mitigated, and by degrees grown entirely obſolete, yet from this root has ſprung a baſtard ſlip, known by the name of the Game Law, now arrived to, and wantoning in its

"its higheſt vigour: both founded upon the ſame unreaſonable "notions of permanent property in wild creatures; and both "productive of the ſame tyranny to the commons; but with "this difference, that the foreſt laws eſtabliſhed only one migh-"ty hunter throughout the land, the game laws have raiſed a "little Nimrod in every manor. And in one reſpect the ancient "law was much leſs unreaſonable than the modern: for the "king's grantee of a chace, or free warren, might kill game in "every part of his franchiſe; but now, though a freeholder of "leſs than 100l a year is forbidden to kill a partridge upon his "own eſtate, yet nobody elſe (not even the lord of the manor, "unleſs he hath a grant of free warren) can do it without "committing a treſpaſs, and ſubjecting himſelf to an action."

The partiality and injuſtice of this code is further apparent, in the attempt of the lords of manors to preſerve the monopoly of the game in themſelves or their deputies, by limiting the right or qualification to kill it, to the owner of 100l. per annum; while a man, having any quantity of land leſs than the above partial and unjuſt limitation, is prohibited from killing a hare or a partridge in his own field or garden. The abſurdity of the game laws is obvious; becauſe the very man who cannot kill a hare on his own field or garden, can prevent the one qualified by law, from killing it there, by action of treſpaſs and damages, and previous diſcharge from his premiſes. It is neceſſary here to call the attention of the reader to the abſolute impoſſibility of rendering any law, authoriſing a marauder to enter the property of another man, under pretence of killing game, compatible with the ſacred ſecurity of property, ſo imperiouſly demanding the attention of every Legiſlator? But, in addition to this, what ought to be the character of that law, which demands ten times as much to quality a man to kill a partridge, as it does to qualify a juror to kill a man? In fact, ſince all theſe laws, inſtead of preſerving the game for the rightful owner, have been fabricated in the genuine ſpirit of a graſping monopoly, the preſent property in the game is completely veſted in the hands of the nocturnal poacher, who has, in moſt manors, even the *indiſputed* poſſeſſion: indeed it is a neceſſary conſequence of all unjuſt laws, to create the very thing they are intended to prevent.

On the whole, theſe game laws form a grievance to the cultivator of the ſoil, not only becauſe he is generally debarred from any part of a pleaſure which the game on his farm might occaſionally furniſh, and to which he ſeems to have ſo natural a right; but becauſe his crops and fences are generally injured by men, with their horſes and dogs, taking liberties utterly inconſiſtent

conſiſtent with that ſecurity of property which ought to be held inviolable in all civilized countries.

All this injuſtice and partiality, all this abſurdity and grievance, would be effectually baniſhed, were the whole code of the game laws repealed, and a new law enacted, founded on the principles of juſtice and equity; whereby the *abſolute* property of the game ſhould be veſted, as of common right it ought to be, in the proprietor of the land it can be killed on, whether ſuch land be a rood, or an acre, whether a garden, a field, or a wood. It will appear, from the above quotation from the learned and laborious Blackſtone, that this would be nothing more than a revival of the ancient Saxon or Britiſh law, which for ages had thus operated before the irruption of the Norman Conquerors; by whoſe fatal ſucceſs all the excellent and free inſtitutions of Anglo-Saxon policy were ſwept away, and on the ruins of which thoſe tyrannous maxims of the feudal and military ſyſtem, were firmly eſtabliſhed. A reaſonable objection to this repeal can ſcarcely be ſtarted; and the writer of this eſſay well remembers it as the decided opinion of that illuſtrious peer, the late Marquis of Rockingham; the ſituation of whoſe principal manſion, in the vicinity of populous towns, rendered all attention to the preſervation of the game from poachers almoſt a joke, on the principles of the game laws, which, in addition to its obvious equity, might probably create a wiſh in him for the reſtoration of the more juſt and rational Saxon law.

2. *Suit and Service* to freehold and copyhold courts, to be performed in kind, as was more generally the caſe formerly, were of two kinds, viz. Free or military, and other ſervices appendant to the tenant in free-ſocage; or, in other words, the holder or owner of lands in fee-ſimple of inheritance, anciently bokland, or bookland, *q. d.* Lands held by written charter or deed, now called Freehold. Theſe ſervices being conſidered as in ſome degree honorary and certain, were commuted by an eaſy payment, under various denominations, ſuch as quit-rents, free farm rents, caſtle guard-rents, &c. &c. which it is not in the power of the lord of the manor to encreaſe. The other kind, viz. mean or baſe ſervices appendant to the tenant in villian ſocage, or the holder or owner of lands, by copy of the court roll, at the will of the lord of the manor, and according to the cuſtom of the ſame, anciently called *folkland*, now *copyheld*. Theſe ſervices conſiſted in cultivating the domain of the lord of the manor, and many other laborious operations, which being more important and ſubſtantial, were of greater value, and of courſe commuted, by payment of annual rents of much greater amount, and by fines, certain and uncertain, to be paid by the vaſſal or copyholder, who conſequently is in a ſituation

tuation at this day much inferior to that of the freeholder, whoſe payments are ſmall and certain. Theſe annual rents, or payments, are in ſome copyhold manors doubtfully impoſed, and fines are levied at the end of a term of years, which in certain ſituations are ſo high as to render the ſecurity of property, expended in improvement of various kinds, very dubious. Theſe fines have an indefinite proſpect on any future value the eſtate may poſſibly arrive to, by improvements however extenſive or lucrative, to the great diſcouragement of ſuch improvements: in ſhort, they are ſuch as, with the ſuit and ſervice, &c. uſually exacted, leave the copyholder in circumſtances little removed from the ſtate of abſolute vaſſalage. The heritors of Durham, and ſome other parts of the country, are in ſome ſort of this deſcription; where the lord of the manor ſeizes, for his own uſe, the beſt horſe, bull, or cow, or other beaſt, which he can find on the premiſes at the demiſe of the holder. Under this diſagreeable tenure are alſo levied fines on death or alienation, of various kinds and degrees; all which, with the burdenſome forms of ſome of the courts, the incidental expences of various kinds, and the extortions of the attorney ſtewards, who are continually racking their brains to invent pretences for increaſing their fees, &c.; together with the very galling idea and ſenſe in the mind of the holder, of the debaſing nature of this ſpecies of dependence,—form a burden and grievance on the ſubject, loudly calling for the interference of any Legiſlature which has a ſincere intention of acting on principles indiſſolubly connected with the public welfare. It were idle to inſiſt on any objection to a general alienation by law, of all rights or claims of this nature, by which every body would be gainers and nobody loſers: for it is the duty of individuals to do this voluntarily, as much as in them lies: and if individuals refuſe, it is the bounden duty of the Legiſlature, on a general ſcale, to do any thing, and every thing in its power, towards the removal of grievances which may and ought to be removed, and to which nothing can be objected, but the pride and caprice of a few individuals; juſtice being no further concerned than in pecuniary compenſation. The Crown has lately ſet a high example, by the ſale of many, if not moſt of its claims of this nature, at a fixed and moderate rate; an example which it is very deſirable may be enforced on all inferior lords, who indeed themſelves, it muſt be preſumed in fact and law, held only of the Crown. A curious inſtance of ſacerdotal ſelfiſhneſs on this head occurs from Sir Thomas Smith's (ſecretary to Edward VI.) Commonwealth, b. 3. c. 10.; where he tells us that "the holy fathers, monks, and friars had, in their confeſſions, and eſpecially in their extreme and deadly ſickneſs, convinced

" convinced the laity, how dangerous a practice it was, for one " Chriſtian man to hold another in bondage: ſo that temporal " men, by little and little, by reaſon of that terror in their con- " ſcience, were glad to manumit all their villains. But the ſaid " holy fathers, with the abbots and priors, did not in like ſort " by theirs; for they alſo had a ſcruple in conſcience to im- " poveriſh and deſpoil the church ſo much as to manumit ſuch " as were bound to their churches, or to the manors which " the church had gotten, and ſo kept their villains ſtill." Judge Blackſtone farther obſerves, on the ſubject of copyholders, that their eſtates, in ſtrictneſs, remain ſubject to the ſame conditions and forfeitures as before; though in general the villain ſervices are uſually commuted for a ſmall pecuniary quit-rent.

3. *Mill Sokes* now claim attention, under which the owner of a mill claims the right of compelling all the inhabitants of a manor to grind their corn at his own mill, to the entire excluſion of any competitor; thereby poſſeſſing a monopoly of that moſt neceſſary and lucrative operation, the grinding of corn, at a price or multure in ſome inſtances almoſt arbitrary; for appeals to courts of law are now, by one mean or other, ſo expenſive, as ſcarcely to deſerve the name of a remedy, even when ſucceſsful. This ſoke has been ſeverely felt as a hardſhip, by ſome of the larger towns in particular, and involved the inhabitants in tedious and expenſive litigations with the proprietors of mills: in which it has not unfrequently appeared, that, by the increaſe of population, and the negligence of the millers, the people have been left without flour for many days together, to the ſerious inconvenience of their families, and under which inconvenience whole townſhips have long laboured without redreſs. It is true, that theſe mills, like many other things which are now juſtly conſidered as abuſes, had originally their uſe; having been formerly erected by the lord of the manor, for the uſe of the inhabitants thereof; who being then in general his own tenants, may well be ſuppoſed to have been bound, and that equitably, to make uſe of no other mill than his own.

But the caſe is at this time materially altered in populous towns and diſtricts, where the lord of the manor, for a valuable conſideration, having long ſince alienated part or moſt of the lands to a great number of freeholders, may juſtly and reaſonably be conſidered as without any right to ſuch a monopoly over men who are no more his tenants, or of granting ſuch a right to any other to whom he may convey his property in the mill. This claim, or right, if it can deſerve ſuch an appellation, has long been and ſtill remains moſt fertile in grievous impoſitions, and almoſt intolerable abuſes, in many parts of the iſland; and, in reſpect to which, the very nature

and

and conſtitution of a free country muſt, and ought to find a remedy: For how can a conſtitution be defined, that redreſſes not the grievances of the people, nor protects its ſubjects from the vexatious impoſitions, unjuſt extortions, and feudal tyranany of a few individuals?

Many thouſands of pounds have been vainly ſpent in lawſuits on this very haraſſing cauſe. In the caſe of one very conſiderable manufacturing town in the county of York, the inhabitants appeared to have a near proſpect of emancipation from theſe *grinding shackles*, as they had ſucceeded in proving the inſufficiency of the mill to grind the quantity required; when, by a ſtratagem, (for ſtratagems occur in law, as in war), the plaintiffs put them off the ſcent, gained time, from the common procraſtination of the law, to rebuild the mill, and entirely defeated them. The proſperity of the town alluded to has been, however, materially affected, in conſequence of the above-mentioned confirmation of the claim of ſoke.

4. *Wastes, or Common Lands*: Theſe will be found, on due reflection, ſubjects worthy of all the attention that can be beſtowed on them; and involving objects of the firſt importance to a nation ſituated like this, between an increaſing population, on one hand, and an inadequate ſupply of produce on the other.

In caſes of intended encloſures of the waſte or common lands, the lord of the manor uſually makes a claim on them to a conſiderable amount; which, being in ſome degree undefined, gives riſe to much altercation, difficulty, and diſcouragement, in that important work; ſo that the adjuſtment of his claim frequently raiſes an obſtacle which entirely defeats the plan of encloſure, ſo beneficial to the puhlic, and leaves the whole in their old unproductive ſtate. For it is well underſtood, that the oppoſition in a committee of Parliament, which the lord of a manor generally has the power of raiſing, will be ſo far prevalent, as to leave the commoners little chance of ſucceeding againſt him. This, added to the uſual practice of appointing one commiſſioner out of two or three, together with the *Tithes*, raiſe an almoſt unſuperable bar to the encloſure, and conſequently improvement, of a great proportion of the waſte lands in the iſland. The tithes are worſe, if poſſible; for the hatred of the commoners in general to that creeping abuſe, is ſo great and increaſing, that, between their averſion to them, when taken in kind, and the ſacrifice of a fifth to a tenth part of the waſte to their exonerations, they are rendered, in many inſtances, perfectly indifferent about any incloſure at all.

The caſe of the waſte lands in the manor of Hatfield, near Thorne, in Yorkſhire, is a proof of the above obſervations; where the commoners, after numerous and heavy expences, in fruitleſs

fruitleſs endeavours to reconcile all jarring intereſts to the deſireable meaſure of encloſing ſome thouſands of very improveable land, after having ſo far ſucceeded as to ſecure the uſual majority of common-rights or claims,—after having waved their objections to the payment of tithes in kind, in conſequence of the tithe-holder's refuſal of any terms of commutation; ſtill the exhorbitant, and perpetually increaſing demands, of the agent of the lady of the manor, entirely defeated the whole ſcheme of this encloſure: which might have been the means of advantage and comfort to thouſands of families, not to mention its obvious public benefit. All theſe are given up to the avarice or caprice of an individual, and to the idea ſtrongly inculcated, of the unlimited manorial power to oppoſe, with ſucceſs in Parliament, any application for encloſure. Is this law? or is it equity? No: But it is a cuſtom, and a cuſtom which, being deſtructive of the common right, and threatening miſery and famine to the community, demands an immediate alteration. Can any thing be more abſurd in law? Can any thing be more ſubverſive of every principle of political economy, than the very exiſtence of an undefined power in individuals to prevent ſuch plans of peculiar and obvious utility to the public, as encloſures of unproductive land in times like theſe: when, from various cauſes, the price of articles of the firſt neceſſity, the common produce of the country, is raiſed ſo high as to be almoſt out of the reach of the lower claſſes of the community, and almoſt to portend the extinction of them and their helpleſs offſpring by thouſands.

5. *Minerals*, ſuch as Coal, Stone, &c. Some of the metals, as iron, lead, &c. are in many places claimed by the lord of the manor, and in nearly the whole of the waſte or common lands; ſometimes to the great injury of the owners of encloſed lands, and frequently of the community at large, by preventing the opening of coallieries in convenient ſituations, by the enterprize of individual freeholders. Under this claim, when the lord of the manor takes into his head to bore, or to make trials, by digging, &c. in ſearch of coal or other minerals, he can enter property, and do what he pleaſes of that ſort, in ſpite of all oppoſition, even upon the moſt favourite and valuable ſpots, (houſe, garden, &c. excepted): and theſe frequently have been undermined and almoſt ruined, while the owner is obliged to ſubmit to it for a compenſation, which, though the diſturber be liable to pay to the amount of the miſchief done, yet ſuch compenſation is too often much beneath a full, fair, and equal remuneration for the damages. This claim forms another prominent feature of that ſtern and tyrannous countenance, which, firſt, by arms, and violence, and rapine, in the days of chival-

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ty; then by what was called law, and now by cuſtom and ſervility, manorial power has been enabled to aſſume, to the utter diſmay and abaſement of an humble, uſeful, and patient yeomanry.

6. *Courts Leet, and Courts Baron,*—to which all the male inhabitants of a manor, with ſome exceptions in favour of the clergy, &c. are deemed liable to attend upon ſummons, for the purpoſe of paying rents or fines, performing ſuit and ſervice, homage, &c. inquiring into nuiſances, &c. chuſing juries, and for other matters pertaining to the manor, are ſtill regularly called in ſome freehold, and generally and frequently in copyhold hold manors, but at very diſtant intervals, *et pro forma,* in other freehold manors. But they are now of ſo little importance in themſelves, and have ſo little power to do either good or harm, that it is not worth while at preſent to dwell on them, further than to ſay, that their juriſdiction and powers are ſo completely abſorbed, by the Quarter-Seſſions and other courts of law, that their total extinction would by no means be felt as a loſs by any one, but the attorney-ſteward, who generally contrives to make the holding of manorial courts productive of ſome emolument to himſelf.

After due reflection on theſe ſubjects, the reader will perceive, that many things in the manorial, or feudal ſyſtem, though, as parts of ſuch a ſyſtem, they may have had their uſe in former times, are now, if not intolerable, yet very injurious abuſes in many inſtances, and in ſome almoſt deſtructive of the common rights of the people.

The power, almoſt arbitrary, of the lords of manors to prevent Encloſures, the Tithes, with large quantities of land in mortmain; the Entails, links of the ſame chain,—all tend to preſerve the monopoly of the very ſoil from which we derive our being, in the hands of a very limited number of proprietors; and thereby leave ſo ſmall a proportion of the lands in the iſland in a ſtate poſſible to be brought to market, though ever ſo deſireable to all parties, that the price of land, both in fee-ſimple, and in rent, has advanced, and is advancing ſo rapidly, as to be almoſt out of the reach of the moſt laborious and patient induſtry of the cultivator, and to baniſh the moſt diſtant hope of encouragement, from the poſſibility of becoming a freeholder in his turn; a hope ſo eſſential to be cheriſhed in every free ſtate, "the cheap defence of nations;" the high reward of merit and uſeful induſtry, that induſtry by which we all live and breathe.

If the attention of the people were wiſely turned to their own concerns, means might be found quietly to remove all abuſes of whatever nature, to eſtabliſh the ſacred rights of property, on her ancient, genuine, and liberal foundations; to

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give ſtability, action, and effect, to the rights and duties of mankind: and, moreover, to ſecure to all, peace, and ſmiling plenty, inſtead of war, famine and peſtilence. Theſe bleſſed objects might be attained at leſs expence than that of a ſingle campaign, and I truſt will ſoon engage the ſerious attention of the Legiſlature.

Finally, it may plainly be demonſtrated by reaſoning, that the extinction or commutation, by ſome means or other, of tithes, manors, and entails, is abſolutely neceſſary in the preſent ſtate of population and induſtry; of which ſalutary object, a patriotic and independent Houſe of Commons will have no difficulty in the execution, whenever it ſhall, in its wiſdom, ſee it in the light of a proper, juſt, and neceſſary meaſure. *W. P.*

FOR THE FARMER'S MAGAZINE.

Letters from a Scots Farmer, who lately made a Tour through England, to his Friend in Edinburgh.

LETTER I.

THE queſtion, Whether travelling, or reading books, contributes moſt to the information of mankind?—has been often diſcuſſed, and plauſible arguments have been argued upon both ſides. Whatever ought to be the reſult of the queſtion, it is obvious that very few perſons have an opportunity of enjoying the firſt mode of inſtruction, while the other is within the reach of the greateſt part of mankind. If, therefore, thoſe who are favoured with a peruſal of the book of life, were generally to preſent the reſult of their obſervations to the public, it would be of material advantage to other claſſes, whoſe means of information are neceſſarily more limited.

During my late journey through different parts of Scotland and England, a journal was kept, wherein was marked down every thing of importance which occurred in converſation, or came under our inſpection. As you wiſh to ſee an abridgement of theſe remarks, I take the opportunity of a leiſure day to preſent a ſhort detail of our tour. You muſt not expect that I am either to deſcribe great men, or great houſes: No, theſe lay out of the ſphere of our obſervation. I will confine myſelf to a curſory deſcription of the ſtate of the country through which we paſſed, with occaſional remarks on ſubjects connected with its improvement. If this is in the ſmalleſt manner gratifying to you, the time beſtowed on this letter will be conſidered as well employed.

It is hardly neceſſary to ſay a ſingle word concerning the vicinity of your city, or the ſtate of the country within twenty miles thereof, as you are intimately acquainted with every par

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of it; but I cannot help remarking, that I was particularly ſtruck with the garden-like culture of Eaſt Lothian; which ſhews what may be accompliſhed by a ſpirited and independent tenantry. This diſtrict has long been famous in the annals of Scotland for ſuperiority in rural ſcience, and the appearance of the country ſufficiently proves that the preſent poſſeſſors are not behind their forefathers in profeſſional knowledge. It was here that ſummer-fallow was firſt practiſed north of the Tweed; and, indeed, almoſt all our modern improvements were uſed by the cultivators of this favourite ſpot, before they were introduced into other parts of Scotland. I have at different times examined the huſbandry of England, and, with a few acceptions can ſafely ſay, that it is not ſuperior to that of this ſmall but fertile diſtrict. I wiſh moſt ſincerely that the proprietors may continue to cheriſh and encourage ſuch an active and uſeful claſs of men as the preſent poſſeſſors, by giving them ſuitable leaſes, upon fair and reaſonable terms; and am inclined to think, that a great deal of its preſent flouriſhing condition may be attributed to the liberal ſyſtem of connection hitherto preſerved betwixt landlord and tenant; which has afforded to the one an extent of rent not exceeded in any part of Great Britian, while the other has not been depreſſed, nor limited in the means for cultivating and improving the ground to almoſt its utmoſt extent.

After paſſing Dunglaſs bridge, we entered the pariſh of Cockburn's-path, in the county of *Berwick*, which is equally well cultivated with the conterminous country. That beautiful piece of architecture, the Peaſe bridge, next came under our examination, which will be a laſting monument to the memory of the celebrated Henderſon. The old tower of Dunglaſs ſtands near the bridge; and here the Earl of Haddington and a number of the Eaſt Lothian gentry, were blown up by gunpowder in the year 1640. The circumſtance is mentioned by ſeveral hiſtorians, and I ſtate it here, with a view to correct an error in Pennant's tour, which has remained hitherto undetected. This generally correct and well informed touriſt, deſcribes this melancholy buſineſs as taking place at Dunglaſs *upon Clyde*; which affords cauſe to preſume that in ſome caſes he did not collect his materials upon the ſpot, but took them from record, and that, in this inſtance, he was led aſtray by the ſimiliarity of names.

The higher grounds which we aſcended after paſſing the Peaſe bridge, can hardly be ſuppoſed ſuſceptible of any kind of improvement; and, till we arrived at the Preſs-Inn, the country within our view appeared a bleak and uncultivated waſte. From the Preſs-Inn to Berwick the ſoil gradually turns better;

and round the village of Ayton, under the influence of a benign landlord, improvements are very far advanced. The gentlemen of Berwickſhire, to do them juſtice, are active and enterpriſing; and their endeavours, I am informed, have been well ſeconded by a reſpectable and intelligent tenantry.

Leaving Berwick, where there is a conſiderable fiſhing and corn trade, our road thro' the extenſive county of *Northumberland* preſented few objects capable of affording enjoyment to an agriculturiſt. The ſoil in general contiguous to the great road is below mediocrity, and the ſtate of cultivation diſplays ſtrong proofs that improvements are but yet in their infancy. This is exemplified by the circumſtance of almoſt every ridge remaining in its original crooked ſtate. The ſtraighting of ridges, though a hazardous and expenſive proceſs, is almoſt abſolutely neceſſary to the carrying on of improvements. Without it a field can hardly be either properly ploughed, harrowed, ſown, or even reaped; and where crooked ridges prevail, it is a ſure ſign that cultivation is defective. No doubt an alteration ought to be attempted with the greateſt caution, and never but when the field is under ſummer-fallow. By repeated croſs-plowings, gathering up all the hallow places, and frequent harrowings, the field may be completely levelled; and if a ſufficient quantity of hot lime is thrown in with a doſe of manure, the new ſoil will at once be brought into action, and no loſs ſuſtained.

Many parts of Northumberland are well cultivated, and the diſtrict of Glendale Ward perhaps to an equal extent with any part of the kingdom. The coaſt ſide, or what is called Bamboroughſhire, has been long in a ſtate of aration, and probably was the firſt cultivated part of the country. About Alnwick, Felton bridge, &c. and upon Tyne-ſide, there is likewiſe a conſiderable portion of good land, though large tracts ſtill remain in an unproductive and unprofitable ſtate.

I was much ſurpriſed to learn that one of the largeſt eſtates in the county was poſſeſſed without leaſes, and that the cottages thereon were all taken out of the farmers hands. The firſt practice is ſo cuſtomary among our ſouthern neighbours, that ſome excuſe may be allowed for it, though I am convinced it muſt militate greatly againſt the proprietor's intereſt but the other is ſo novel, that I am at a loſs to imagine what reaſons influenced the noble proprietor to adopt it. Does not the greateſt part, if not the whole of theſe cottagers, receive their employment from the farmer, conſequently ought to be attached to him by every tie? Whereas, by ſeparating the houſes from the poſſeſſion of the ground, a different intereſt is reared up, which may prove prejudicial to the maſter, without adding to the comfort or advantage of the ſervant.

I have cauſe to believe, that the withholding of leaſes is meant to increaſe the political influence of the landlord; who thereby ſacrifices a part of his annual income, and injures the national capital, merely to promote a purpoſe ſeldom beneficial to himſelf, and contrary to the ſpirit of the Britiſh conſtitution. It augments the number of votes in the hand of one man, and is juſt the ſame thing as if the proprietor was to poſſeſs the right of election, according to the extent of his eſtate. After all, it often goes for nothing, as two or three, or a greater number of freeholders, by a conjunction of intereſt, may be a match for the greateſt; and coalitions of this nature have not been unfrequent in this very county.

Newcaſtle is a throng, buſy place; much engaged in the coal trade, and, like all our old towns, built in a moſt inconvenient and confuſed manner. The coalleries in the neighbourhood afford employment to an immenſe number of people; and if many fortunes are not gained in this line of buſineſs, yet great ſums of money are thereby circulated in the town and adjoining country. The town is almoſt ſurrounded by wind machines for grinding flour, &c.; and there is a large muir at the very gates, the diviſion of which has always been oppoſed by the *independent* burgeſſes.

From Newcaſtle to Durham, the road is exceedingly diſagreeable, as it is carried to a great height over Gates-Head fall; whereas, by turning round by the lower ground, it might have been made incomparably eaſier to the traveller without much increaſing the diſtance. Similar inſtances of inattention prevail in many parts of the kingdom particularly where roads were earlieſt made, and occaſion a heavy loſs to the trade of the country. Many people think that a ſtraight line muſt always be the ſhorteſt road, which certainly is the caſe when the ground is level; but in hilly and mountainous ſituations, the reverſe is generally the fact.

Durham is a moſt irregular built city, but well ſtocked with clergymen of all deſcriptions, who poſſeſs a large ſhare of territorial property in the neighbourhood. The biſhop is an amiable character, is very popular, from ſome recent inſtances of public ſpirit, and, I believe, well deſerves the large ſtock of worldly goods which has fallen to his ſhare. I have ſometimes attempted to aſcertain the uſe for which prebends and other dignitaries of the like kind were intended, but have conſtantly failed in the attempt. To me it appears, that the grant of a prebendary means the grant of a comfortable penſion, without drawing it from Exchequer; and that religion is neither directly nor indirectly concerned in the tranſaction.

I noticed, with pleaſure, to the northward of this place, ſe-

veral large fields which were formerly in a ſtate of common waſte, now divided and incloſed, and improvements going rapidly forward. Paring, and burning the ſward, ſeemed to be the great mean uſed for bringing theſe fields into a ſtate of cultivation; and I am inclined to think, conſidering the difficulty of reducing the turf, and the immenſe number of ants and grubs with which the ſoil is ſtocked, that ſuch a proceſs is the moſt effectual that can be deviſed. Theoriſts have often objected to this radical cure, becauſe, ſay they, it waſtes the ſoil; but practical men generally laugh at their fears, from a thorough conviction of the beneficial conſequences attending the operation in the firſt inſtance, which, under judicious management, ſeldom fails to procure at once ſuch a ſtock of manure, as to render the improvement ſolid and laſting.

Around Darlington, particularly to the ſouthward of the town, the ſoil is very fine; and here I diſcerned the firſt proof of the climate being improved ſince we left the vicinity of your metropolis. Every thing in the fields was hitherto far back in growth; the ear of the wheat was not ſeen, and the hedges had not, in a ſingle inſtance, ſhewn their bloſſom; but paſſing this place, the wheat ears were diſcovered burſting from the blade, and the hawthorn appeared in full flower. As we advanced ſouthward, I could not perceive any further alteration in the growth, either of hedges or grain, till we arrived within twenty miles of London.

Darlington is a clean healthy town, and diſcovers ſome marks of trade and manufactures. A great number of the people called Quakers reſide here; and, from their ſober appearance and regular demeanour, it is to be wiſhed that more of our countrymen belonged to that ſect. They ſhew their faith by their works; and, however formal and ſtiff their behaviour, in ſome reſpects, may be viewed by ſtrangers, their general conduct is ſuch as fully to juſtify me in ranking them as valuable members of the ſtate.

The biſhopric of Durham is upon the whole a valuable diſtrict; a great part of it is encloſed, and in a very productive ſtate. I was informed the incloſures were chiefly made about the time of the Reſtoration, and, agreeable to the faſhion of the times, they are rather ſmall. The trees in the hedge rows though very ornamental to the country, are dangerous neighbours to the arable farmer, by preventing a free circulation of air; and the paſtures, from their age, cannot be conſidered as producing any thing like what the ground is capable of bearing, if it was renovated with freſh ſeeds. This muſt always be the caſe where the ſubſoil is not dry, and ought to influence the poſſeſſors to break up ſuch fields, which, after being properly diſciplined

diſciplined by the plough, might be ſown down again with proper ſeeds, and a large additional quantity of graſs would be procured.

A great number of Engliſh landlords view the breaking up of old paſtures as a moſt miſchievous buſineſs, and abſolutely believe their property would be ruined, was this meaſure to be carried to any extent. Theſe apprehenſions muſt be produced by former inſtances of miſmanagement in the breaking up of graſs lands; for it muſt be confeſſed that too many farmers adopt an erroneous ſyſtem in ſuch caſes. The firſt crop, which is uſually oats, will be good, if the land gets only common juſtice in the operations of ploughing and harrowing; but the goodneſs thereof tempts the farmer to ſow another white crop, and here commences the evil; for all old graſs lands are diſpoſed to run foul, and the riches accumulated for a number of years, give a decided encouragement to the growth of couch and other weeds. The crops of grain therefore fall off, and the land gets into the wildeſt and fouleſt ſtate. The ſure way of preventing theſe evils, is to give a complete ſummer-fallow the ſecond year of ploughing, which will deſtroy the turf and the ſtore of weeds with which ſuch fields generally abound, and will bring them into a proper ſtate of cultivation for carrying heavy crops. Wherever this management has been adopted, I have never ſeen it fail; and it is the only one which can render the breaking up of graſs lands advantageous to the tenant, and not detrimental to the proprietor.

After leaving Darlington, we croſſed the Tees, a few miles to the ſouthward of that place, and entered the North Riding of York. We had ſome converſation with an intelligent farmer at *Northallerton*, the head town of the Riding, and were ſurpriſed to learn that wheat was preferred after clover, inſtead of oats, becauſe the latter is apt to make the ground run *wild*. Sowing wheat upon a clover ſtubble, is a very uſual practice in many parts of the kingdom, and the crop is certainly, in moſt caſes, ſuperior in value to oats, particularly in England; but to ſuppoſe that oats contributed more than wheat to render the land foul, was what excited my wonder; for all land ſown in ſpring muſt neceſſarily be cleaner than if it lay in a harrowed ſtate during the winter months. Beſides, oats are a cloſe crop at the root, which wheat is not, and being good foragers, thrive well on clover leas. Indeed, from comparative trials, it has been aſcertained, that, at the difference of one third in price, a crop of oats is equal in value to a crop of wheat, independent of the ſuperior condition in which the land is left for ſucceeding crops.

The land about Northallerton, and through the whole North Riding

Riding, till we arrived at York, is moſtly of an excellent quality; and the fields, with ſome exceptions, which happen every where, are in apparent good order. Perhaps too much of the land is in old graſs paſture, but ſtill the quantity under the plough is conſiderable. I ſhould ſuppoſe that it is capable of yielding very heavy crops of all grains; but the want of leaſes, and the reſtrictions impoſed upon the tenantry, are obſtacles to the exertions of the occupiers, which will always prevent agriculture from being carried on in a perfect manner. Unleſs a farmer has liberty to work the land he poſſeſſes agreeable to his inclination, it is impoſſible that he can farm with advantage. When he is inſecure in his poſſeſſion, and liable to be turned out by capricious ſummary warning, he is of courſe deſtitute of the great charm which every where ſets induſtry in motion, that is, the proſpect of reaping the fruits of the money expended in improvements: and when his powers of management are limited, he can only be conſidered as a tool to another perſon, who preſcribes directions for his government, which muſt be implicitly obeyed, whether they are agreeable to his judgment or not. I ſhould humbly ſuppoſe that theſe things have greatly contributed to keep the practice of huſbandry, not only in this diſtrict, but over all England, much more in a ſtationary poſition, than it would otherwiſe have been, had the farmer enjoyed the ſame diſcretion in the conduct of his buſineſs as is poſſeſſed by merchants and manufacturers. The latter claſſes have made much greater progreſs to perfection than the cultivators of the ground, who may be deſcribed as following, from one generation to another, the ſame beaten path.

The city of *York* occupies a greater extent of ground than many places of equal population. The river Ouſe is navigable here and even to the diſtance of Ripon, in the Weſt Riding. I believe the city is a county of itſelf, and, together with what is called the *Ainstey*, unconnected with any of the three diſtricts into which Yorkſhire is divided.

There are no manufactures at York, at leaſt we did not hear of any, which is rather ſurpriſing, conſidering their extent in the weſtern and ſouthern parts of the ſhire. Perhaps the ground in the neighbourhood is too good for manufactures thriving upon, as it is well known they are generally moſt ſucceſsful upon barren ſpots. Shall I trace this to the bountiful direction of Providence, which uniformly influences the diſpoſitions of the people to ſuch works as is moſt conductive to general proſperity. Where the ſoil is good, and capable of producing ſubſiſtence in a plentiful manner, the inclinations of the great bulk of mankind are turned to rural affairs. Where it is inferior, and incapable of ſupporting a number of inhabi-

tants

tants, they are led to carry on manufactures, and are thereby enabled to purchase the necessaries of life from the cultivators of the ground. The one is fed by the productions of the farmer, while, on the other hand, the manufacturer prepares raiment, and many other things, for the comfort of those who toil and labour to provide the means of his existence. In this way both classes contribute to promote the public good, without, after all, meaning any thing themselves but to promote their own private interest.

I dare say you will think the length of this letter sufficient for my first epistle; and as York is half way to London, and the place where travellers generally take a night's repose, I shall, in conformity to their example, drop my pen, and give you a respite till a future occasion. I am, &c.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

STEPPING one day last summer into your Parliament House, and observing a crowded auditory attending the pleadings, I anxiously enquired concerning the business on hand, as it seemed to be of importance, from the great number of lawyers reciprocally employed. Finding it was a process about misla-bouring a farm, I listened with attention to the pleadings on both sides, but was much at a loss to comprehend the nature of the obligations contained in the lease; particularly where the tenant was taken bound to keep the land in *Tath* and *Quend* or *Querd*, for the counsel did not read all one way. As I could not understand their meaning, it will be particularly obliging that you give this letter a place in your first number, which I hope will induce some of your friends, skilled in the antiquities and ancient language of Scotland, to explain the import of these cabalistical and unknown terms. I am yours, &c.

No Antiquary.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

SPECULATIVE men have often amused themselves, by endeavouring to ascertain what proportion of the produce of land should be given to the landlord in lieu of rent; but these inquiries being generally founded upon theoretical principles, the result has seldom turned out agreeable to what practice would have dictated. While Mr Young thinks that one third is too much for rent, and that in most cases one fifth is sufficient

ficient, ſome landlords are not ſatisfied unleſs they get a full half of the produce, and, according to the greateſt part of our modern leaſes, little more than that proportion may be conſidered as reſerved to the tenant for intereſt of his capital ſtock, tear and wear thereof, expence of working the ground, and the ſupport of his family.

It is not my intention to enter upon a diſcuſſion of this queſtion at the preſent time, but to confine myſelf to a few curſory remarks upon the dangerous conſequences of increaſing rents too much, or, in other words, taking every halfpenny from the tenant which can poſſibly be got. Perhaps nothing has contributed more to retard improvements, than the avaricious diſpoſition manifeſted by many proprietors to increaſe their rents, and to prevent the tenantry from acquiring ſufficient capital for working the ground in a perfect manner. It is entirely owing to the fluctuating ſtate of capital, that improvements in agriculture have not kept pace with the arts and manufactures of modern times; though, at firſt ſight, one would have been inclined to think, that as huſbandry is abſolutely neceſſary to the exiſtence of mankind, the practice thereof would have ſooner advanced to perfection than any other art. Daily experience, however, may convince the moſt ſuperficial obſerver, that this is not the caſe; nor will it be otherwiſe, till the cultivators poſſeſs a greater power over the ſoil they occupy, and are provided with ſufficient means for undertaking all the different operations which belong to their complicated buſineſs.

It muſt be confeſſed, that for fifty or ſixty years paſt, theſe circumſtances have leſs applied to the low country of Scotland, than to any other part of Britain; and that a liberal ſyſtem of connection has generally been maintained betwixt proprietors and tenants, the ſalutary effects of which are diſcernible to the dulleſt capacity. It is from an apprehenſion that a change is gradually taking place in the nature of this connection, which muſt neceſſarily be detrimental to the public good, that theſe animadverſions are offered. A firm conviction of the unavoidable dangers which muſt follow the wreſting of capital from the tenantry, either by an exorbitant riſe of rents, or by impoſing arbitrary reſtrictions upon their management, which indirectly accompliſhes the ſame end, ſolely influences us, upon this occaſion, to ſtate the conſequences.

From tradition we are informed, that, after the acceſſion of James I. to the throne of England, the proſperity of Scotland ſuddenly declined; which was in great meaſure owing to the increaſed luxury of the landed intereſt requiring an augmentation of rents. At the concluſion of the laſt century, almoſt the whole capital employed in the cultivation of the ſoil was drawn from the tenantry, who were thereby reduced to the greateſt

greateſt poverty. Fletcher of Salton, who wrote at that period, deſcribes them as ſunk into the moſt abject degree of wretchedneſs, and Lord Kaimes declares, that, before the Union, they were ſo *benumbed with oppreſſion*, that the moſt able inſtructor in huſbandry would have made no impreſſion. It is well known, that, betwixt the beginning of this century, and the year 1750, landlords found a great difficulty in procuring tenants who could ſtock their farms, and ſecure them in payment of any rent at all; and that when they found one of this deſcription, he got any length of leaſe he pleaſed. Theſe long leaſes, which at that time were univerſally granted, gave a ſpur to the activity of the tenantry, and, together with the growing proſperity of the country, enabled tenants to recover and increaſe their capitals. If theſe capitals are again wreſted from them, it does not require the ſpirit of prophecy to predict that ſimilar conſequences muſt again take place, and that the kingdom, from a flouriſhing condition, will return to that ſtate of wretchedneſs and miſery in which it was before the Union.

We have a ſtriking inſtance of what neceſſarily accompanies a depreſſed huſbandry, in the preſent low condition of Spain. The proſperity of any country does not depend ſo much upon the quantity of gold and ſilver it contains, as it does on its internal induſtry, and the diffuſion of capital for carrying it on among all ranks of the ſtate. Whenever, therefore, the capital of the huſbandman is diſſipated, the chain is broken, and, as in France before the Revolution, a luxurious landed intereſt, rich merchants, and monied men, opulent contractors, and farmers-general, may be found, while the face of the country lies uncultivated for want of capital, and the maſs of the people are reduced to the moſt abject condition.

Whether matters are in a train for bringing about ſuch a change in the ſtate of this country, we preſume not to ſay; but it is certainly true, that the great increaſe of rents and public burdens, and the augmented charge for every article of labour, muſt neceſſarily injure the tenant's capital, unleſs prices of every kind of produce riſe in an equal proportion. That this, for an average of years, has not been the caſe, we believe will not be diſputed; and that farmers have been able to go on, muſt be attributed to the ſuperior ſkill generally diſplayed in the management of rural affairs, and to the capital formerly accumulated, when rents, taxes, and labour, were comparatively leſs.

Under the preſent exhorbitant rents, the greateſt part of tenants live in a conſtant dread of a fall in the value of produce, which, in a few years, would ſtrip them of their capital, and reduce themſelves and families to beggary. Nor can they have the

the ſmalleſt aſſurance this will not be the caſe; for the riſe upon produce is occaſioned by the fall upon the value of money, the encreaſe of trade, the proſperity of manufactures, and the wealth of Aſia, which is continually flowing into this country. But reverſe theſe circumſtances.—Suppoſe trade and manufactures checked, and Britain ſtripped of her foreign poſſeſſions; corn would then rapidly fall in value till it came to a level with the prices of other countries. Theſe things would, no doubt, ſoon find their level; in the mean time, the leaſeholder might loſe his capital, and be reduced from a ſtate of affluence to poverty and wretchedneſs.

It may be ſaid, Why does the farmer offer more rent than he is able to pay? We ſhall anſwer this queſtion by putting another,—Why do proprietors, in general, take ſuch methods of letting their lands?—This is a moſt important ſubject, and to enter upon it now, would probably engroſs more room than you could conveniently ſpare in one number. We ſhall therefore reſerve it, together with remarks upon ſome modern attempts to narrow the power of the farmer in the management of the ground, and to impoſe reſtrictions upon him not formerly conſidered as neceſſary, for a future letter. In the mean time, with beſt wiſhes for the ſucceſs of your Magazine, I remain, yours, &c. ARATOR.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

On Subsetting of Land.

GENTLEMEN,

I PERUSED your Proſpectus with a great deal of pleaſure, and rejoice that the nineteenth century is to be introduced with ſuch an uſeful publication. I truſt it is an evidence of the progreſs of knowledge, which is faſt ſpreading amongſt all ranks, and hope that you will experience a liberal ſupport from the cultivators of the ſoil, both in this and the ſiſter kingdom.

Amongſt the benefits which our profeſſion will receive from a work excluſively devoted to their information and inſtruction, is the opportunity it affords of diſcuſſing every ſubject connected with rural economy. In Newſpapers, and Magazines of a miſcellaneous nature, theſe ſubjects were formerly overlooked, as people thought it unneceſſary to convey their remarks through ſuch precarious and neglected channels. Your publication, however, preſents a ſure road to attention; a circumſtance of particular importance to thoſe whoſe intereſt is affected by the ſubjects diſcuſſed.

Under this impreſſion, I beg leave to tranſmit you ſome obſervatio

obſervations, upon a queſtion which I conſider as materially connected with the proſperity of agriculture in this and every other country: Namely,—Whether tenants ought to be allowed liberty of ſubſetting their farms, where they have not agreed to denude themſelves of that liberty? That they have not ſuch a right by common law, is a doctrine lately advanced, and I believe partially confirmed by a few deciſions of our ſupreme court; but, taking the matter in the abſtract, theſe deciſions, unſupported as they are by Statute law, cannot have further weight againſt the right, than merely what ought to be attached to the collected voice of an equal number of individuals of the ſame knowledge and information.

In the agricultural ſurvey of an eaſtern county, highly celebrated for ſuperiority in rural ſcience, the learned and reſpectable perſonage employed to draw up the work, ſays, (p. 128 of the quarto edition), "it is now an underſtood principle at common law, that, unleſs the tenant ſhall ſtipulate this power, and that there ſhall be a ſpecial covenant to that effect in the leaſe, he can neither aſſign nor ſubſet; or, in other words, if the leaſe ſhall be ſilent upon this point, the tenant has no ſuch power;" and he afterwards adds, that "the principles upon which this rule has been eſtabliſhed, ſeem to me to be grounded upon good ſenſe and ſound policy."

By the word *now*, in the firſt part of the quotation, it appears but this rule has been but lately eſtabliſhed, and that the law of Scotland was formerly interpreted in a different manner. But by whom has this alteration been introduced? Was it enacted by the three eſtates in Parliament aſſembled? No: but by the will of perſons who are themſelves proprietors of land, and who probably have imbibed old feudal prejudices, which prevent them from obſerving that ſuch a rule (for we will not call it a law), contributes to ſink the ſpirit of the tenantry, and to ſtop the progreſs of agricultural improvements.

Mr Erſkine, in his Inſtitutes of the law of Scotland, ſeems to entertain a different opinion upon this point; and it is ſurpriſing that the juriſdiction act, which aboliſhed the old feudal rule, that a vaſſal could not be received on an eſtate without the conſent of the ſuperior, did not alſo aboliſh the feudal clauſes in leaſes, prohibiting a ſubſet of land, or, in other words, do away the power retained by proprietors, to prevent any perſon from poſſeſſing land, whether they had their permiſſion or not; which is exactly ſimilar to the feudal rule, that a vaſſal could not be received without the conſent of the ſuperior. In this reſpect the Ruſſian boor is ſuperior to the Britiſh farmer; for, according to the ingenious Mr Tooke, it is perfectly indifferent to the owner of the eſtate, in what manner, and by what means the

the boor procures his livelihood, so he do but regularly pay his *obrok*, or rent; and that under this adjustment the latter is in some sort his own master, being free to dispose of his activity, as well as of the share of the soil committed to him. Were tenants in this country allowed in like manner to alienate their property, and to change their situation, they would certainly possess no more right than is already enjoyed by the rest of the community.

But what injury would the landed interest sustain from the exercise of such a right? Would the rent be less secured, or the prestations of the lease more imperfectly implemented, when the tenant alienated and disposed his lease in favours of another? An unprejudiced person would rather be led to think that additional obligations would create additional security for the faithful discharge of the burthens originally contracted, as that any injury would be sustained by the alienation of the lease, and the change of the tenant.

We come now to the remark,—that the witholding a right to subset is founded on good sense and sound policy;—and we may enquire, where the sense or the policy of the refusal is to be found. In no respect can the landlord's interest be injured; on the contrary, as already said, it is additionally protected, by two or more persons being concerned in the transaction. The refusal, therefore, is rather an instance of a lack, than a proof of sense; and as for the policy of witholding the right, it is equally undiscoverable. It is obvious that the majority of subsets would proceed from the inability of the original tenant to keep his possession, or from a desire to change his situation in life. In the first case, the farm cannot be properly cultivated, and in the other, the tenant may leave the premisses under the management of a servant, against which practice no law has as yet been established. In both cases the property may be deteriorated, and at any rate it will not be improved; whereas if a subset had been allowed, a superior tenant might have been procured, whose capital was sufficient for the undertaking, and whose inclinations led him to follow after rural affairs. Again, in the first case, a person is obliged to continue in possession till his affairs are totally embarrassed; and, in the other, he must abide like a fixture upon the premises, or commit his affairs to the direction of others. Let these things be duly considered, and the impolicy of withholding the right contended for will be clearly discernible.

Under every view of the matter, the landlord cannot be injured by the exercise of this right. It may be said he is entitled to chuse his tenant, and that by subsetting he may get a disagreeable person upon his estate. These objections have little

little weight; for whoever is the tenant in poſſeſſion, the original leſſee is bound for the faithful obſervance of all the preſtations; and if theſe are performed, the landlord can have but ſmall concern with the occupant. Beſides, even under the ſtricteſt prohibition, the choice of a tenant is not in a landlord's power, while the leaſe goes to heirs-general, and it may run through as many hands this way, as if it were permitted to paſs to aſſigns. Even the diſpoſition of the original tenant may change during the courſe of a tack, and a greater alteration of conduct may be experienced, than what would have proceeded from the introduction of a third perſon.

In a word, we conſider it as ſound and equitable doctrine, that, if a perſon has not renounced a right to ſubſet, he is, according to the principles of juſtice, upon which law is certainly founded, entitled to the exerciſe of that right. If, on the contrary, he has ſpecifically bound himſelf not to exerciſe it, he of courſe is not entitled to complain, as he has made a law for himſelf; but upon the general queſtion, Whether it would be ſound policy to allow every tenant to alienate his leaſe, in the ſame manner as is done with every other ſpecies of property?—we are clear, that ſuch a liberty would not prove prejudicial to the landed intereſt, while the public good would be greately benefited, and improvements forwarded with increaſed rapidity. I am, yours, &c.

A Friend to Improvements.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

Annual Charge attending a Plough and two Horſes.

GENTLEMEN,

EXPERIMENTAL Agriculture being an object of importance, I am glad to notice that you propoſe to pay it conſiderable attention. Having ſome reaſons to believe that the expence attending experiments is ſeldom juſtly aſcertained, I beg leave to ſend you a ſtatement of the annual charge of a plough and two horſes, which may ſerve a double purpoſe. It will ſhew the immenſe increaſe which has taken place in the price of labour, and aſſiſt, thoſe who may tranſmit you the reſult of experiments, how to calculate the expence.

Annual

Annual Charge attending a Plough and two Horses.

Servant's wages and maintenance - -	L. 21	0	0
Corn for 2 horſes, from the 1ſt of October to the middle of June, 3 firlots per week, which, with odd feeds, may be taken at 30 bolls, at 16s. per boll - - - - - - -	24	0	0
200 ſtones of hay, to be eaten when the horſes are taken from green food, and betwixt yokings during ſeed time, at 7d. - - -	5	16	8
1 & 1-half acre of clover and tares for ſummer food	9	0	0
Smith and wright work - - -	5	0	0
Saddlery work - - - -	1	0	0
Intereſt on capital ſtock at 5 per cent.* -	6	0	10
12½ per cent on L. 70 periſhable ſtock, for tear and wear - - - -	8	15	0
Annual charge	L. 80	12	6

Now let us endeavour to aſcertain from the above, what is the charge per acre to the farmer for ploughing and harrowing his land.

It will readily be granted, that 42 Scots acres per plough is as great a quantity as can be properly managed in ordinary caſes. If this extent is arranged agreeable to the common ſix courſe ſhift, there will be 7 acres in ſummer fallow, 7 in wheat, 7 in beans, 7 in barley, 7 in clover, and 7 in oats; and the number of ploughings and harrowings during the courſe will be,

1. Fallow,

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* The capital ſtock, ſo far as reſpects ploughing, may be reckoned as follows:

2 horſes - - - - - - -	L. 42	0	0
Plough, brake, and harrows - - -	5	5	0
Long and cloſe carts, with wheels and iron axle	15	0	0
Barrows, grapes, forks, &c. - -	0	15	0
Saddlery - - - -	7	0	0
Servants wages - - -	21	0	0
Horſe corn - - - -	24	0	0
Hay - - - - -	5	16	7
	L. 120	16	8

1. Fallow,	6 ploughings,	3 harrowings.
2. Wheat,		2 ditto.
3. Beans,	2 ditto,	3 ditto.
4. Barley,	2 ditto,	4 ditto.
5. Clover,		
6. Oats,	1 ditto,	3 ditto.
	11	15

Multiplying the above numbers by 35, the quantity of acres actually under tillage, and dividing the amount by 5, the number of breaks, the result will be, that two horses, during the year, plough 77 acres once over, and give 105 double times of harrowing to one acre of ground. As their expence for that time is 80l. 12s. 6d., it may be classed as under:

77 acres once ploughed, at 18s. 3d.	L.	70	4 3
105 harrowings, at 2s. - -		10	10 0
	L.	80	14 3

It will no doubt be attended to, that all the other operations performed by the man and the two horses, when not engaged in ploughing or harrowing, are included in these charges; but as they are paid from the produce of the above quantity of land, and as these incidental operations are, in fact, work required upon the premises, it is deemed unnecessary to state them separately, as this would not lessen the sum total of the labour-account. It therefore appears, that 35 acres of land, in a productive state, and under a six course shift, are laboured by the farmer at the expence of 80l. 12s. 6d., or 2l. 6s. per acre, independent of seed corn, grass seeds, harvest work, threshing, marketing, incidental expences, and the support of the family.

In debiting a particular field for farm-labour, I know of no better method, than first to ascertain the ordinary outlays, then to reckon up the number of ploughings and harrowings given to each field, and, after finding how much that amounts to per acre, to proportion the expence accordingly. If these rules are adhered to, the expence and profit of the farmer's operations may be as minutely ascertained as the concerns of the merchant and manufacturer.

I need scarcely add, that every article in the annual expence of a plough and 2 horses, is very moderately charged, being at least one third below what they will amount to this year: For instance, the servant's wages and maintenance will be 30l., and the value of corn given to the horses, in all probability three fifths more than the sum charged. I am, Sir, yours, &c.

December 6. 1799. *A Rural Economist.*

TO

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

The neceſſity of Summer-Fallow, upon all clay ſoils, is well deſcribed in the Agricultural Survey of Yorkſhire; and I beg leave to tranſmit you a few remarks made on that ſection of the Report, by a landed Proprietor of that diſtrict, which you have leave to publiſh in your Magazine. I am, &c. N.

WHY does the farmer fallow more than the gardener? The firſt has worſe ſoils to contend with than the latter, and he has always leſs force in proportion to his farm, than the gardener has to cultivate his garden: the latter can alſo generally command more manure; for he either is a market-gardener, near a great town; or a gentleman's gardener, having the care of his maſter's garden; he can alſo command a greater occaſional force. I do not think it proper to include, in this queſtion, ſmall gardens, belonging to farmers and ſmaller proprietors, for the ſmall ſize of ſuch gardens is in favour of my argument. Could farmers command, at a reaſonable rate, a force as ſuperior to the cultivation of their farms, as the gardener can in proportion to his garden, what numbers of ſervants and their families would they not maintain? and, ſtrictly ſpeaking, the whole country would be cultivated like a garden. But here, commerce, or more properly manufacture, interferes; and, by offering high wages, renders this cultivation impoſſible to effect, without a great advance in the price of the farm-produce. Here again commerce and manufacture ſtep in, and ſay, this muſt not be; we muſt be unfettered ourſelves, but it is for our benefit, *ergo*, for the benefit of the country, that the farmer ſhould be ſhackled; and the farmer, thus incloſed on all ſides in a circle, is obliged to fallow his ground, becauſe he cannot, by a great force, eradicate his weeds, and clean his ground, in a given time, as ſhort as that required to render fallows unneceſſary. To this may be added the want of manure; and even what takes place with the beſt farmers, and who have the moſt force, untoward ſeaſons, ſuch as the laſt, which on a farm, by preventing and poſtponing the work, ultimately diminiſhes the force. This very idle idea of not fallowing farms, has been taken from obſervations inaccurately made on the cultivation of gardens, without attending to the above circumſtances; and that almoſt every crop in a garden is drilled, or planted in lines, with ſufficient ſpace to admit ſometimes the plough or horſe-hoe, but always the hand-hoe. Obſerve, ſay the enemies of fallowing, how you act againſt your intereſt; why, they never fallow in a garden: but more injury has been done by not fallowing, than any advantage which has been gained by continued cropping. Virgil, in his Georgics, commands worn out lands to be fallowed for two years; and I have known land in this condition moderately manured, when made completely clean by a double fallow, make every farmer or labourer, who ſaw it, a convert to that mode of management.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

I beg leave, through the channel of your publication, to ſuggeſt the moſt productive method of ſowing *Tares*, when intended for ſeed; which is, to mix them amongſt beans when drilled, at the rate of one firlot of tares to one boll of beans. From trials made, it is aſcertained that the quality of the tares is vaſtly improved by being blended with beans, as, by clinging to the latter, they are kept from the ground, and enjoy the full benefit of the ſun, for ripening them in a perfect manner. They are in this way much eaſier harveſted than when ſown by themſelves. They anſwer, at the ſame time, for bands to tie the principal crop, and the produce may, on an average of ſeaſons, be conſidered as at leaſt double. As a conſiderable quantity of tares are annually imported into this country from England for ſeed, I am confident, if they were ſown in the way now recommended, that we could not only render this importation unneceſſary, but alſo be able to ſupply other diſtricts where they might be wanted.

It will be obvious, that when tares are intended for green food, there is no neceſſity for mixing them with beans. When ſuch is the purpoſe, they require to be ſown tolerably thick, ſo as the ſurface may be early covered; and if the ground is good, and recently dunged, an acre of them will afford as much *keep* for horſes and cows, as can be gained from a full clover crop; at leaſt I found them laſt ſeaſon fully as beneficial.

One material object procured by ſowing tares, is, that the farmer is never at a loſs for a ſufficient ſtock of *green food*, be the ſeaſon almoſt what it will. They alſo come in with great advantage betwixt the firſt and ſecond cuttings of clover; or when the latter fails, as was generally the caſe laſt ſeaſon. Indeed, thoſe farmers who are unprovided with tares, were at a great loſs for meat to their horſes, after the middle of Auguſt; and many had to reſort to their hay ſtacks, which is one of the cauſes why that article is ſo ſcarce. To attain the full benefit of this ſpecies of green food, the ſowings ought to be at different times, beginning the firſt as early as poſſible, ſo as progreſſive cuttings may be got, without allowing them to ſtand till over ripe, when horſes are not fond of them. In England, they have a cuſtom of ſowing Winter tares; but I am apprehenſive our climate will not admit of this practice; at leaſt, from ſome trials which have been made, expectations were diſappointed. At any rate, Summer tares may be got for food from the middle of July till the middle of November, and, in favourable ſeaſons, even later.—I am, &c. *A Farmer.*

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

In this country, we are confeſſedly behind our ſouthern neighbours in the rearing of live ſtock; and I am apprehenſive our practice will not be improved, till greater attention is beſtowed upon the raiſing of green food, for ſupporting them during the Winter months. As matters are now carried on, the greateſt part of our cattle and ſheep are ſtarved during one half of the year; and, at that time, they neceſſarily loſe the fleſh which they had previouſly gathered, and, of courſe, at next graſs ſeaſon, are ſo weak and emaciated, that a conſiderable time elapſes before they are reſtored to their former condition.

Under theſe circumſtances, it will not excite ſurpriſe, that our breeding farms (at leaſt where cattle are the chief ſtock) are only capable of paying a very trifling rent, which would not be the caſe, were ſuitable induſtry uſed to procure Winter food. In the low parts of Scotland, it is well known, that, in nine caſes out of ten, young cattle receive little other ſuſtenance but what they get in the ſtraw yard, or from the pickings of barren muirs; while, in the Highlands, where the greateſt quantity is bred, they hardly receive as much ſtraw, or coarſe boggy hay, as will preſerve them alive. Hence, they are ſtinted in their growth, and prevented from arriving at any ſize, while the time for fattening them upon better paſtures is conſequently prolonged. Great loſſes are alſo ſuſtained by this procraſtination, which, added to the intereſt of capital, and the charge of ſo many years maintenance, renders the profit, when a ſale is made, very inconſiderable.

It appears to me that theſe circumſtances might be obviated, were due attention paid to what I have mentioned. It is certain that all the cattle in Scotland might be fattened for the butcher, after paſſing three years of age, and that their weight might be increaſed at leaſt one third, were Winter food provided for them. Where this is unattainable, it would be found good policy to introduce ſheep in their place. I know few ſituations where turnips may not be raiſed; and it is truly ſurpriſing what effects are produced from a very trifling quantity given to young ſtock. Their blood is thereby kept in a proper ſtate, and the conſtitution of the animal is in a manner prediſpoſed to receive more benefit from the dry food given alongſt with them. In ſhort, I hardly know a more beneficial way of uſing turnips, than applying them in this way; and, in a breeding farm, every object ought to yield to their culture, ſo far as it is practicable.

Almoſt

Almoſt every thing I have ſaid will equally apply to a ſheep farm, though I have no difficulty in admitting, that the want of green food is attended with leſs loſs and inconvenience in the one caſe than the other. Experience ſufficiently aſſures us, that a Highland farm is capable of paying a great deal more rent under the ſheep than the cattle ſyſtem; and the real cauſe is preciſely what is here aſſigned, to wit, that the firſt may be profitably kept without the aid of green food during the Winter; whereas, the other cannot be reared with advantage, unleſs ſuch collateral ſupport can be procured.

Hence it follows, that breeding farms, where green crops cannot be raiſed, ought to be applied ſolely to the ſheep huſbandry; and that the rearing of cattle ought to be confined to ſuch parts of the kingdom as are capable of producing a ſupply of food during every ſeaſon of the year.—I am, &c.

VERUS.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

Beſt Food for Horſes.

GENTLEMEN,

HAVING ſome time ago obſerved a Publication advertiſed, intituled, "The Farmer's Magazine," a work which I hope will be equally creditable to you, and uſeful to the public,—I take the liberty of ſuggeſting a few hints reſpecting the food of our domeſtic animals; which, under the preſent circumſtances of ſcarcity, and the bad quality of every article of proviſion, may be attended with ſome benefit. In ſeaſons ſo unfortunate as the preſent, uncommon vigilance is neceſſary; the higheſt degree of which will be little enough to avert a very ſerious and widely extended calamity. Having made ſome obſervations upon the quality of proviſions in particular years, I lay the reſult before you. In late wet ſeaſons, the firſt evil ariſing from damp or unwholeſome grain, is a diſorder of the bowels, attended with gripes, looſeneſs, &c. which carry off many individuals of all deſcriptions; and, of thoſe that ſurvive, the aliment paſſes ſo rapidly through their bowels, that little of the nutritive qualities remain. To counteract this evil, boiling has been had recourſe to; and, to a certain degree, has had the effect of preventing gripes, and leſſening any immediate danger. The practice is, however, ſubject to one diſadvantage; namely, that of its opening the bowels too much. There is another remedy, which, from experience, has been found more beneficial, not only for removing the griping and diſorder of the bowels, but at the ſame time in-

ſuring the greateſt proportion of nouriſhment to the animal; namely, *kiln-drying*, which, when properly done, and the grain afterwards broke, affords, in any ſeaſon, a moſt valuable nouriſhment, particularly in ſuch a one as the preſent. I know it will be objected to by ſome farmers, on account of the bulk of the article, and the trouble and expence with which the drying and breaking ſo much grain would be attended; a trouble which, I confeſs, is conſiderable; but which will, upon trial, be found more than repaid by the attention recommended. A great proportion of both ſtraw and hay are this year exceedingly bad; and nothing but an uncommon degree of attention can prevent an evil, which at preſent appears to be a moſt extenſive one. I am, &c.

A Friend to Agriculture.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

The following valuable paper was tranſmitted by the Britiſh Conſul in Pruſſia, to the Lords of the Committee of Council for Trade, and obligingly communicated by Mr Chalmers, their Secretary, to Sir John Sinclair, Bart. As it belongs to a branch of huſbandry which at all times has been viewed as of importance to the proſperity of Great Britain, I truſt it will readily find a place in your Magazine; in which caſe, ſome other papers of the like nature, received through the ſame channel, and now in my hands, ſhall afterwards be ſent you. I have only to add, that the public are infinitely obliged to Mr Durno for the trouble taken in drawing up ſuch an uſeful and ſatisfactory Report; which certainly deſcribes the flax huſbandry of Ruſſia, Poland, and Pruſſia, with the greateſt perſpicuity. I am, &c.

N.

Mr DURNO*'s Report concerning the method of cultivating Flax and Hemp, in Pruſſia, Ruſſia, and Poland; dated Berlin, 4th November* 1789.

As Mr Durno cannot be ſuppoſed *individually* to poſſeſs a competent knowledge of this ſubject, he thinks it neceſſary to premiſe, in order that the foundation on which the credit of his report reſts may be known, *1ſt*, That, for the purpoſe of obtaining the beſt imformation poſſible, he formed a chain of queſtions; and, availing himſelf of the advantage of an extenſive acquaintance throughout the interior parts of the countries in queſtion, forwarded theſe—not to the Learned, becauſe he could have expected from them only theory—nor to Merchants,

Merchants, becauſe they are accuſtomed to ſee theſe articles only in their *prepared* ſtate—but to *ſuch* country Gentlemen as have diſtinguiſhed themſelves moſt by their attention to the cultivation of their eſtates, and may therefore be ſuppoſed to have combined *practice* with *theory*, and conſequently to ſpeak from *experience*, as to the reſult of *both*.

For further ſatisfaction, he annexes a tranſlation of theſe queſtions, with that of one of the returns thereupon received. On a general compariſon of which, the reſult appears to be,

1. That a black (not moraſſy) open gravelly ſoil has been found to produce the beſt crops both of flax and hemp; and that, as they become too exuberant, conſequently *coarſe*, on a ſoil too rich, much care muſt be taken to reduce ſuch a ſuperior, as to raiſe an inferior or poorer ſoil to a middle degree of ſtrength, on which the *quality*, which is of much more conſequence than the *quantity*, that may be gained, wholly depends.

2. That the raiſing of *previous* crops of grain, on ſuch fields as are deſtined for flax and hemp, is, in general, practiſed as the beſt mode of aſcertaining this middle degree of ſtrength. On a vigorous ſoil, in the uſual manner cultivated, wheat is firſt ſown, then rye, barley, and oats; ſucceed laſt of all, either peas, flax, or hemp. Such lands bear two ſucceſſive crops of hemp, if intermediately dunged; and for one of flax, are not manured at all. But on a ſoil of leſs ſtrength, flax and hemp are ſown immediately after a Winter crop of rye, the field being ploughed up once either in the intervening Autumn, if the weather allows, or, if not, in the Spring; harrowed over and manured; and then again ploughed immediately before ſowing. The diſadvantage of this, is however the leſs, if there ariſes any at all, becauſe a Winter crop of rye may be ſown in the ſame field again, immediately after drawing of the flax or hemp; if after a crop of hemp, *without*, but if after a crop of flax, *not without*, being again manured. A field that has lain fallow, if only ploughed up, yields a better crop of flax, than if cultivated and manured in the above, or in any other way.

3. The uſual time of ſowing flax and hemp in thoſe countries, (which, though moſtly under the ſame parallel as England; that is to ſay, thoſe parts of them that grow the articles in the greateſt quantity and perfection, are ſo much colder in Winter, and warmer in Summer, and ſubject to ſuch inſtantaneous changes from the one to the other, that they can ſcarcely be ſaid to enjoy the temperance either of Spring or Autumn, night froſts being very prejudicial), is between the

25th May and 10th June, to the reaping, &c. of the flax, in the end of Auguſt, and the hemp in the end of September: hence it appears, that the flax is three, and the hemp about four months, in a ſtate of vegetation.

4. The difference, if any, between theſe two articles themſelves, as alſo, between them and barley, in reſpect to the degree to which crops of them impoveriſh the ſoil, is held to be very trifling; becauſe, as already obſerved (§ 2.), though no ſort of grain can be ſown immediately after a crop of flax, unleſs the land has been again dunged, yet after one of hemp, any other ſort, and even hemp itſelf, may be ſown without previous manuring. This *difference*, ſeemingly ſo material, would *yet*,—(when it is, on the other hand, conſidered that the field deſtined for a crop of hemp is, while that intended for a crop of flax, is not, previouſly manured; and that hemp, though it thus requires the aid of manure, while flax does not, kills or ſuffocates all ſorts of weeds;—thereby in ſome meaſure counterbalancing, by the cleanneſs which it leaves, the greater degree of ſtrength which its vegetation may be ſuppoſed to require; and, *laſtly*, that neither article is ſuppoſed to impoveriſh the ſoil more than barley),—inſtead of being realized, ultimately reſolves itſelf into the eſtabliſhment of this very material fact, that flax and hemp may be and are cultivated in theſe climates, without any greater preparation or prejudice of the ſoil, if the farmer only ranks his crops according to its primitive ſtrength, than will ariſe or be neceſſary for the growth of any ſort of grain adapted to its then actual or temporary ſtate of cultivation; nay, even, that a ſoil which is foul, or infected with weeds, may, by a crop or two of hemp, be cleaned, and of conſequence greatly improved.

5. That hemp killing or ſuffocating (chiefly through its ſudden growth, and the excluſion of the free circulation of the air, occaſioned by the largeneſs of its leaves) all ſorts of weeds or undergrowth, there is no trouble of this kind with it; but that flax is, in general, weeded once or twice before it blooms.

6. That, in the ordinary courſe of cultivation, the flax is plucked, when the ſtalk has become yellowiſh, the pods brown, and the ſeed hard and full bodied. It is then perfectly ripe, and the ſeed of ſuch crop is fit for the purpoſe of ſowing. But thoſe who refine, or are deſirous of gaining a ſuperior, or the fineſt poſſible quality of flax, from one and the ſame ſeed and field, pluck it earlier, viz. while the ſtalk is yet green, the pods only beginning to change colour, and the ſeed grains quite flat; and this being before it is ripe, the harle of the flax

proves

proves indeed much finer, but the ſeed is ſacrificed, and fit for cruſhing only; and though the quality of the oil thereby produced is as good, the quantity is much leſs, than an equal meaſure of the ripe ſeed would have rendered.

The hemp is alſo pluckt or drawn, in the uſual courſe of cultivation, when the ſtalk and pods have turned colour, and the ſeed grains are become plump and hard, and not earlier on any account whatever. But thoſe who proceed ſyſtematically, and refine moſt on the quality of this article, make a diſtinction between the male and female, or ſuch ſtalks as do, and ſuch as do not, bear ſeed-pods, plucking the latter before the former, or as ſoon as the ſtalks *only begin to change* colour; and, at all events, keeping it ſeparate, as rendering a *finer* harle.

7. The ſeed, if the flax is very dry when pluckt or drawn, is *ſtript* off immediately; if not, after drying two or three days in the field; and, in caſe the weather will not admit of this laſt operation, the tops of the ſtalk, as far as the ſeed goes, are *cut* off. In either of theſe three caſes, the ſeed and pods are immediately ſpread out as thinly as poſſible on a floor, through which the wind has a free circulation, there turned over twice every day, until ſo dry, that the pods open of themſelves, and then threſhed out and cleaned in the ſame manner as the different ſorts of grain.

For gaining the *hemp ſeed*, the hemp itſelf, as ſoon as pluckt or drawn, is ſet up upon its root-ends againſt the wall-palings, or other ſuch places as, according to the weather, are moſt convenient, until perfectly dry. The roots and top-ends, as far as the ſeed goes, are then cut off; the former thrown away as uſeleſs, and the latter thraſhed out and cleaned immediately.

If the ſeed of either is ſuffered, inſtead of being immediately cleaned, to remain for any length of time in a foul moiſt ſtate, its colour is thereby ſpoilt, and even its ſubſtance ſo much injured or reduced, that it cannot be employed for ſowing; and, when cruſhed, produces, not only a leſs quantity, but alſo a worſe quality of oil, than it would otherwiſe have rendered.

8. As ſoon as the ſeed has been gained in the manner above deſcribed, both the flax and the hemp are immediately put into the ſteep, ſo carefully ſunk, as that no part of them may remain above the ſurface of the water; and there keep the flax until it disjoins itſelf from the rind, and the hemp until the harle ſprings from the ſtalk.

If the weather is warm, and the water ſoft, nine or ten days may be ſufficient for that purpoſe. In hard water, and cold weather, from fourteen days to three weeks are generally requiſite; ſtagnant is preferred to running water, not only

as it produces the ſame effect in leſs time, but becauſe running and ſpring water make the harle red and towey; and large bodies of ſtagnant water are preferred to ſmall, becauſe they have been found to give a whiter or cleaner colour; but fiſh-ponds muſt be avoided, becauſe the fiſh would be thereby deſtroyed; as alſo ſuch places as cattle are watered at, if they are ſo ſmall as that the whole maſs may be thereby impregnated, becauſe ſuch water is held to be both unwholeſome and unpalatable for them.

Of the different kinds of bottoms or ſoil, on which ſuch pieces of water ſtand, the muddy or ſlimy is preferred, and ſuch only as are particularly prejudicial avoided, being either moraſſy, from being metallic, or appearing to contain cold ſprings.

In the ſouthern provinces of Poland, as Volkinia, Podolia, &c. which have the beſt ſoil and climate for the production of theſe articles, but which, for want of a water-communication with the Baltic, have been hitherto leaſt cultivated, the mode of ſteeping is not practiſed at all, on the ſuppoſition that the harle is thereby weakened, and the colour darkened. But when it is obſerved, *on the one hand*, that ſteeping can only have ſuch pernicious effects when injudiciouſly or improperly managed; as, for example, by uſing hard inſtead of ſoft water, or letting it lye too long in the ſteep; and, on the other, that, when dried, inſtead of being ſteept, it is impoſſible to ſeparate the harle from the rind of the flax, or from the ſtalk of the hemp, without breaking, conſequently without ſhortening it; nor with ſo little labour; conſequently at ſo ſmall an expence, (that of the ſteeping taken into the ſcale), as if it had been *watered* inſtead of being *dried*. There ſeems to be leſs doubt of the mode of ſteeping being preferable, ſince it is, in the climates in which theſe articles are cultivated of the beſt quality, and to the greateſt extent, almoſt univerſally practiſed; and that the method moſt generally adopted cannot but be ſuppoſed to be the beſt.

9. After being taken out of the ſteep, and ſtanding a few hours on end, to let the water run off, the flax is ſpread out on a graſs field, where it cannot touch the earth, 14 days on the one ſide, and 14 days on the other, then gathered together, ſet up in ſmall ſtacks, and there left ſtanding until perfectly dry; but the hemp, inſtead of being ſpread out on a field, is ſet up againſt the walls or palings, until it is likewiſe quite dry; and then both are houſed in ſuch ſituations, as to be expoſed as much as poſſible to a free draught of air; but neither to any the leaſt wet from without, nor dampneſs from within; becauſe ſo much of them as might ſuffer from either the

the one or the other, would be quickly rotted, beſides having a tendency to ſpread and infect the reſt the more and the farther, the longer it might remain undiſcovered.

A continuation of rainy weather, during this operation, is rather unfavourable, but ſeldom or never productive of any material loſs; *becauſe* leſs time of *ſuch*, than of dry weather, is ſufficient for effecting that preparatory degree of mortification thereby intended, or which is neceſſary for completing the disjunction of the harle from the ſtalks, rinds or ſcales; the lying in this ſituation a few days longer than is abſolutely neceſſary, not being prejudicial, and the opportunity of *one fair day* only, ſufficient for the purpoſe of houſing. The needy peaſant ſets about dreſſing as much as poſſible immediately, in order to turn it into caſh, for the payment of his Michaelmas rent; but the man of ſubſtance does not think of this, until he has firſt put his Winter ſeed into the ground, and finiſhed all his out-of-door or field work.

10. The manner of breaking and cleaning, as well as the forms of the inſtruments therein employed, being ſuppoſed to be the ſame all over, and the ultimate difference to conſiſt only in the degree to which the cleaning is carried, a particular deſcription of either ſeems to be ſuperfluous.

If the weather is clear and warm, the heat of the ſun proves ſufficient for effecting the firſt part of the operation, viz. (*of ſoftening the harle, and ſpringing or ſplitting the ſcales;*) but if it is not, a room, moderately heated by an oven or ſtove, muſt be had recourſe to, and every peaſant, in the practice of cultivating any quantity either of flax or of hemp, has an apartment for that particular purpoſe.

11. However much may depend on the judicious management of theſe eſſential points, it is nevertheleſs to be obſerved, that the great *difference* of *quality*, diſtinguiſhed by the names of the ſeveral provinces, counties, or eſtates, in which they reſpectively grow, do not ariſe from the variety of the quality of the ſeed, or from that of any other circumſtances than the ſoil and climate; and that the utmoſt exertions of knowledge and induſtry, can therefore only to a certain degree *improve*, but never effect an abſolute *change* in the *quality*, known to be the produce of any particular province, county or eſtate, ſo far as that the beſt of the one can never be brought to equal the beſt of the other, although ſituated under the ſame latitudes.

12. It is generally underſtood that the cultivation of flax and hemp is more profitable in theſe counties than that of any ſort of grain.

Suppoſing a piece of ground put into the uſual ſtate of cultivation or bearing a crop of hemp, the other crops which it would

would be moſt fit to carry, being barley or peas, the calculation would ſtand thus: 4 ſheffels of hemp ſeed would produce, on an average, 10 ſtone of hemp, valued at 6 f. - F. 60
8 ſheffels of ſeed, valued at 3 f. - - 24

Making together, Pruſſian money - - F. 84
And deducting the ſeed ſown, being 4 ſh. at 3 f. - 12

would leave groſs produce - - F. 72

On the ſame piece of ground there might be ſown 3 *ſheffels*, producing a crop of 15 ſheffels of barley, valued at 3 f. F. 45
deducting the ſeed, 3 ſh. at 3 f. - - 9

would leave groſs produce - - - 36

Or 2 *ſheffels of peas*, producing a crop of 12 ſheffels, valued at 4 f. - - - - - - - - 48
and deducting the ſeed, 2 ſh. at 4 f. - 8

leaves groſs produce - - - F. 40

So that, in the groſs produce, there would ariſe a minus on *barley* againſt hemp, of 36 f. in 72 f.; and on *peas* againſt hemp, of 32 f. in 72 f.; being about 50 *per cent.* on the former, and 44 *per cent.* on the latter; the tow of the hemp being allowed againſt the ſtraw of the barley and peas.

It is indeed true, that the farmer, individually conſidered, does not gain the whole, nor, perhaps, any thing more than a very ſmall proportion, of this groſs ſurplus, the greater expence of cultivation and dreſſing conſuming the reſt; but it ſeems no leſs obvious, that, whatever may be the proportion which remains to him as a nett profit, the whole of the groſs ſurplus, if the matter is conſidered in a national point of view, falls to be placed to the credit of the public; in as far as, whatever the farmer gains leſs than the ſum total of the groſs ſurplus of the value of *the one article* above *that of the other*, conſiſts in money paid for the extra or greater expence of cultivation only; that is, in money paid for hand-labour in the proſecution of an operation which, at the ſame time that it obliges him to hire, enabled him to pay a greater number of induſtrious people than he would otherwiſe have either wanted, or been able to maintain; and if the acquiſition of this ſurplus would be an object of importance, ſuppoſing it to ariſe on the difference of the value of two articles of our *export*, how much *more ſo* is it not, when, as in the preſent caſe, it would ariſe from the cultivation of articles, without which neither our marine nor manufactures can ſubſiſt, and for which we would otherwiſe be obliged to depend on others, in as far as we

must

muſt *import*, to the extent of whatever our manufactures or conſumption exceeds our *home* growth, from *foreign* countries, at leaſt at the ſame, if not at a yet greater expence, than the groſs ſum at which the valuation is here ſtated? And if ſuch an accumulation of ſimilar operations be ſuppoſed to take place, as to extend itſelf all over the nation, to what a degree might not its population be carried, ſince the population of any given ſpot or country naturally depends on, or is in proportion to, the means of ſubſiſtence which it affords; of conſequence its manufactures, trade, and revenue, are in the ſame ratio?

It may be indeed objected, that grain, as the firſt and grand neceſſary of life, ought to be the firſt object. But this poſition ſeems only allowable when combined with certain local circumſtances, and particularly when it *is taken for granted*, that the cultivator is ſolely and abſolutely dependant on the growth of the identical ſpot on which he lives, or of his own lands, for his daily ſubſiſtence; as may be ſuppoſed to have been the caſe of Adam and his family in the primitive ſtate of man; or that would be the caſe of England, or of any other iſland abſolutely ſecluded from all communication with other people or countries; becauſe, *if the contrary is admitted*, that is, that the individual, conſequently any given number of individuals, as compoſing a nation, may as eaſily, in the concurrence of reciprocal wants, or at a market, buy any given proportion of corn, as of wool, flax, or hemp, the *chief part* of what *he eats*, as the *whole of that material without which* he cannot earn his bread. We need only farther ſuppoſe, what experience has aſcertained to be a matter of fact, viz. That the general or average produce of thoſe parts of our hemiſphere which lay within the compaſs of ſuch an intercourſe or exchange of reciprocal neceſſaries, is equal to its general conſumption, in order to find reaſon to conclude, that that maxim, though applicable in ſome, does not apply to all ſituations; and that, though it ought not to be loſt ſight of in any caſe, it may, under ſome circumſtances, be carried to a prejudicial degree, and particularly in ſuch a caſe when the œconomiſt, who has the choice of cultivating any *one* of *two* articles, *both* of *which* he *muſt* have, does not, from prejudice, or other motives, prefer that which would render (or, which is exactly the ſame thing, would coſt him) *the moſt money*; for who, to ſubſtitute another compariſon, foreſeeing that he will want both wheat and oats, and having a piece of ground on which he can grow *both*, or *either*, would not ſow wheat only, and take his chance of being able to lay in the oats, and ſo gain a ſurplus with the exceſs of the value which the wheat

wheat crop would render, above that which a crop of oats would have produced? If ſuch is the caſe, conſidering the ſubject in a theoretical point of view, the only doubt that remains, in reſpect to the practical application thereof to the object of the preſent report, may be reduced to this ſimple queſtion, Whether England, in particular, is in the firſt or the laſt of the two ſituations above deſcribed? Since, if it is actually in the laſt, there would then remain no doubt, that the cultivation of flax and hemp, as two articles which, if we do not grow, we muſt import, may and ought, to a certain degree, be countenanced or encouraged, in preference even to that of corn; or, at leaſt, ſo great a probability of the truth of this concluſion, as to recommend the ſubject to the inveſtigation of perſons of ſuperior knowledge.

13. Be this as it may, certain it is, that in ſome countries, and particularly in Weſt Pruſſia, the peaſants are not allowed to cultivate either flax or hemp, until they have firſt ſown a ſufficiency of corn for their own conſumption; while no traces of any encouragement given by either of them are to be found. Theſe governments, it would ſeem, entertaining an idea that there is a ſufficient, if not even too great an encouragement or temptation, to prefer theſe articles to corn, ſimply in the ſuperior profit ariſing from the comparative produce of their crops.

Allowance is, however, to be made for this material circumſtance, that in thoſe countries the peaſantry are yet in a ſtate of bondage, either actual or *conſequential*, and therefore without any other ſtimulus to induſtry, or even to provide for their own perſonal ſuſtenance, than what proceeds from a fear of either ſuffering actual want or corporal chaſtiſement.

Berlin, 14th Nov. 1789. JAMES DURNO.

TRANSLATION.

Queſtion 1. What ſoil is deemed beſt for growing of flax or hemp?

Anſwer. Flax and hemp will grow beſt upon a middling ſoil, as they become too exuberant when the ſoil is rich; and a ſandy ſoil, particularly if the ſeaſon be dry, has not ſufficient power to mature them; but ſtill the ſame ſoil does not in every diſtrict produce the ſame crop. It has been found, that the Oberland ſeed, ſown in Lithuania, in the ſame ſoil it ſprang from, degenerated the third year; on the other hand, Lithuania ſeed ſown in Oberlands, improved, and produced the third year a crop equal to the beſt Oberlands.

Q. 2. When is the beſt time to ſow flax and hemp?

A. In Oberlands, they ſow flax and hemp in the beginning of

of June, and pick it about the beginning of September, according as the ſeaſon proves favourable, or otherwiſe.

Q. 3. What grain, on the ſame land, is generally ſown immediately before or after flax or hemp?

A. If flax and hemp be not the chief object of cultivation, and the ſoil in its full vigour, it is cuſtomary in Oberlands to ſow firſt wheat, then rye, barley, oats, peas, and then flax or hemp, the laſt, on the ſame piece of land; becauſe the plucking up of the roots tenders the ground, and prepares it for the manure. It is with this view alone, that flax or hemp is ſown the laſt, for it is not ſuppoſed their cultivation impoveriſhes the lands more than any other grain, as, after the crop of flax, the ground is manured with common dung, and is thus prepared for whatever ſort of grain may be wanted.

Q. 4. How is the land manured for flax or hemp?

A. As agriculture is here not purſued very ſcientifically, if the land requires manure in general for other grain, the ſame is uſed for flax and hemp.

Q. 5. What grain impoveriſhes the land moſt, and how muſt it be treated after a crop of flax or hemp?

A. This ſeems difficult to determine, though it may be obſerved, that barley can only be ſown twice on the ſame land without manure, but other grains oftener; and when any preparation is requiſite, the management of the land is the ſame for flax or hemp as for other grain.

Q. 6. When, and how often ought the flax and hemp to be weeded?

A. It is not adviſeable to weed either flax or hemp at all, as too much is deſtroyed in the operation; therefore, the beſt method is, to be very careful in cleaning the ſeed.

Q. 7. When ought flax or hemp to be pulled?

A. When the ſeed is fully ripe; as flax or hemp, pulled in the bloom, gives a weak unſerviceable harle.

Q. 8. Can the ſeed be collected in pulling the flax or hemp, or muſt it firſt be dried?

A. So ſoon as the flax or hemp is plucked, the ſeed pods are cut off, and left on the field to dry, and are afterward thraſhed and cleaned.

Q. 9. When muſt the flax or hemp be laid in water? How long ſteeped? And why is ſtanding water preferred to running water?

A. Immediately after the pods are cut off, the flax or hemp muſt be hurried into the water, and there lye entirely covered. If the weather be hot, and the water ſoft, nine or ten days are ſufficient; but, in ſpring water, and cold weather, it may be three weeks ere it be ready; but by no means let

it

it be put into running water, as this makes the flax red and towey. Ponds, however, may, in caſe of need, be filled from a river or ſtream; but ſo ſoon, or rather before, the flax or hemp is in, the communication muſt be ſtopped, and no freſh water admitted. It muſt be remarked, that the water in which flax or hemp has been ſteeped, is of no more ſervice for that year, and fiſh ponds muſt be avoided, as it will kill all the fiſh. Flax, put into large bodies of ſtanding water, as lakes, generally turns out the whiteſt.

Q. 10. Is it immaterial on what ground the ponds are?

A. Moraſſes and ſprings muſt be avoided; otherwiſe the ground, where the ponds are made, is immaterial.

Q. 11. How long muſt it dry in the field? Can it in this ſituation be ſpoiled? And is this danger not to be avoided?

A. If the ſeaſon be dry, three weeks will ſuffice; but if there be continued rains, the whole is ſpoiled, and no remedy.

Q. 12. Is it prepared directly? Or, if not, Where, and in what manner is it kept?

A. If time permits, it can be immediately prepared; otherwiſe, provided it lies only dry, it may wait your conveniency.

Q. 13. How is it prepared for ſale?

A. Before it be broke, it is put into a room gradually heated by ſtoves, and, when ſufficiently criſp, it is taken out and broken on a wooden machine made for that purpoſe, and then ſwingled and cleanſed proper for ſale.

Q. 14. Why is the preparation through ſteeping preferred?

A. Becauſe it produces more flax, ſtronger harle, and better colour; for it is ſuppoſed the linen worked up from unſteeped flax never can be well bleached.

Q. 15. How many feet ſquare are required for ſowing ſix ſheffels of lintſeed, and how are the profits of theſe ſix ſheffels calculated?

A. Six ſheffels of lintſeed ſuffice for about five morganland, or 67,500 ſquare feet culm, the land meaſure here, which is computed to be nearly 60,000 ſquare feet Engliſh meaſure. The Pruſſian peaſant makes no calculation of his profit on theſe five morgans, until the produce be ſold.

Q. 16. What is deemed moſt advantageous to be ſown in the land of the ſame extent, and prepared in the ſame manner as is requiſite for ſowing theſe ſix ſheffels of lintſeed?

A. As it is already obſerved, in the third article, that flax is ſown upon land which has been already uſed; therefore, ſuch land is only proper for oats or flax, of which two it may be preſumed that flax will yield the more profit.

Q. 17. Is the Pruſſian peaſant allowed to cultivate as much flax as he pleaſes?

A.

A. The Pruſſian peaſant is not allowed to cultivate flax, until he has ſown a ſufficient quantity of corn for his own conſumption; and the further uſe of his ground then depends upon himſelf.

Q. 18. Is flax cultivated every where in the ſame manner?

A. Flax is cultivated and prepared in the ſame manner throughout Pruſſia, and made quite ready for ſale, by the peaſant alone.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

GENTLEMEN,

If the following obſervations upon the Climate of Eaſt-Lothian appear worthy of notice, you are at liberty to inſert them in your Magazine. I am, &c. *A. B*

THERE is perhaps no diſtrict, of equal extent, in the united kingdom, in which the climate is ſo various, as in the county of Eaſt-Lothian; from the ſea-coaſt to the Lammermuir hills, a diſtance of only 13 or 14 miles, all the different ſhades of climate, generally met with in the north of Europe, are experienced.

This variety is evidently owing to the elevation of the land in different parts above the level of the ſea: From the ſouthern boundary of the Frith of Forth, the country riſes towards the Lammermuir hills, not in a gradual ſlope, but in a ſort of ridges, running nearly parallel to each other, in a direction from weſt to eaſt; each of theſe ridges poſſeſſes a climate in every reſpect ſuited to its altitude. Thoſe neareſt the hills being colder, and the ſeaſons later, than ſuch as are leſs elevated and nearer the ſea; while the vales or intermediate ſpaces, enjoy, with little variation, the ſame climate and ſeaſons as the open flat part of the county.

But though the actual degree of heat, as meaſured by the thermometer, in the different parts of Eaſt-Lothian, will be found to correſpond pretty nearly with this deſcription, there are other circumſtances to be taken into the account, which have a very conſiderable influence upon the climate; ſuch as the prevailing winds, and the figure and ſituation of the moſt elevated lands: this laſt may indeed be ſaid to regulate, in a great meaſure, both the violence of theſe winds, and the quantity of rain that falls in different parts throughout the year.

From December till May, the winds are variable, chiefly from eaſt to north, and moſt of the rain and ſnow that fall during that time, are from theſe quarters, with occaſional

ſtorms

ſtorms from the north-weſt: towards the beginning of May, the ſea-breeze ſets in from the eaſt, and, in ordinary ſeaſons, continues with very little interruption till the end of July or beginning of Auguſt; during that period, contrary to what happens for the remaining part of the year, the eaſt winds are generally attended with dry weather, a circumſtance of conſiderable importance to the eaſt part of the county. From the beginning of Auguſt till the end of Autumn, the winds vary from the weſt, to ſouth and ſouth-eaſt; in which laſt quarter, they are for the moſt part attended with rain or foggy weather, and often occaſion much perplexity and loſs to the farmers during harveſt; but the heavy gales that happen in Auguſt and September, are moſtly from the ſouth-weſt.

It has been obſerved, that the land riſes from the ſea towards the hills, not in a regular or gradual ſlope, but in ridges, moſt of which, (with the exception of Garleton hills) commence near the weſtern extremity of the county, and are continued eaſtward for many miles. The northernmoſt ridge, forming a part of the ſea coaſt, commences on the eaſt ſide of Aberlady, terminates at North-Berwick Law, and comprehends the whole of the lands to the north of the vale of Peſſer. The intermediate ridges between that and the hills, terminate a conſiderable way inland, with the exception of that which forms Drumbender Law, and which runs much farther eaſt than any of them.

By means of theſe terminations, a very valuable, as well as extenſive plain, is formed on the eaſt part of the county, the extreme boundary of which is the Lammermuir hills on the ſouth, and North-Berwick Law on the north. This figure of the country, has a conſiderable effect, not only upon the winds, and the quantity of rain that falls during the year, but alſo upon the productions of the earth. It has been obſerved, that the prevailing winds, during the Summer months, are generally from the eaſt; and that eaſt winds, at that ſeaſon, are, for the moſt part, attended with dry weather; any rain that falls during that time being from the weſt, owing to the circumſtance of a part of the clouds coming from that quarter, being attracted by the high lands at the weſtern extremity of the county, and divided in ſuch a manner, as to ſend them off in two different directions, one towards the Lammermuir hills, the other taking the direction of the Frith of Forth.

The remaining clouds which eſcape theſe heights, continue their courſe to the eaſtward, till they meet with Garleton hills, Kilduff, and Drumbender Law, where, owing partly to the attraction of theſe hills, and partly to the ſea-breeze from the eaſt,

eaſt, which they then encounter, they are ſent off in a triangular direction, one part being carried towards the Frith of Forth, and the remainder to the Lammermuir Hills; along which they are carried till they reach Dunglas, where they empty themſelves into the ſea.

The figure of the eaſt coaſt of Scotland contributes greatly to the uniformity of the ſea-breeze in the county of Eaſt Lothian. The high land of St Abb's Head, on the ſouth, and the Fife hills, on the north, form a bay of great extent; into which the wind, from the eaſt, enters, as into the mouth of a large funnel. This current of air, in its progreſs weſtward, is gradually confined by the contraction of the country; and, when it reaches the coaſt of Eaſt Lothian, is divided into two ſtreams by North Berwick Law, and the ridge that runs weſt from it; one of which takes the direction of the Frith of Forth, and the other blows over that extenſive plain which forms the eaſt part of the county.

As the current proceeds to the weſtward, it is gradually confined within a narrow ſpace: in that way, its velocity is ſo much increaſed, that when it encounters the clouds from the weſt, it has acquired a degree of ſtrength ſufficient to alter their direction, and prevent their further progreſs towards the eaſt. Owing to this cauſe, very little rain falls in the eaſt part of the county during the Summer months; a circumſtance that has often tantalized the farmers in dry ſeaſons, when they had long expected rain with much anxiety, and flattered themſelves with the near proſpect of it; a diſappointment which, though it has by ſome been conſidered a ſerious misfortune, deſerves to be viewed in a different light. In fact, the want of rain, to a certain degree, in that part of the county, is productive of advantages that are not very generally underſtood; as the ſuperior quality of the grain raiſed there, is owing, in a great meaſure, if not entirely, to its growing and coming to maturity under ſuch favourable circumſtances.

The fact is now well eſtabliſhed, of the beneficial effects of light and heat on vegetation; as it is perfectly known, that the colour and flavour, as well as the nutritive qualities of all the productions of the earth, depend in a great meaſure upon the proportion of the light and heat they enjoy during their growth. This is remarkably the caſe with fruits of almoſt every deſcription, and with ſuch ſorts of grain as are ſubjected to the proceſs of fermentation in the different operations of brewing, diſtilling, &c.

It is only ſince the invention of the ſaccharometer, an inſtrument now uſed for aſcertaining the ſtrength and value of worts, that the public attention has been directed to this

point. By the help of this contrivance, it is found that grain, produced under the favourable circumſtances already mentioned, is much more valuable than that which is raiſed in ſituations where more rain falls, and where it enjoys leſs ſunlight and heat during its growth and ripening.

Trials, made with every poſſible care, and under the direction of the beſt judgment, prove, beyond a doubt, that grain, produced in the earlieſt and drieſt ſituations, contains greatly more of the ſaccharine or fermentable matter than that which is raiſed under leſs favourable circumſtances.

The eaſt part of the county of Eaſt Lothian is fortunately ſituated in this reſpect. The ſoil, which is a light loam upon a gravelly bottom, would be in danger of ſuffering from the Summer's drought, were not the heat tempered by the ſea-breeze, which keeps it always moderate; in that way, the bad effects of exceſſive heat are obviated, and all the advantages reſulting from the combined effects of light and moderate heat obtained.

To lay down rules that will apply to every ſituation, is a difficult, perhaps an impoſſible taſk, eſpecially where circumſtances are ſo diſſimilar; but, in the choice of grain for brewing, diſtilling, or indeed for any uſeful purpoſe, the buyer will find his account in purchaſing in thoſe diſtricts where the ſoil is dry, the harveſt early, and where the greateſt portion of heat and light are enjoyed during the Summer and Autumn.

The invention of the inſtrument above mentioned, has conſiderably altered the ſtandard by which the value of grain was formerly eſtimated; and, if properly taken up, will tend to eſtabliſh a rule for judging of the value of produce, much more correct, than any with which we have yet been acquainted. Formerly, the *weight*, in proportion to the cubical meaſure, was conſidered the beſt criterion; and, certainly, where grain is meant to be manufactured into meal, the circumſtance of its weighing well, will be a primary object with the buyer, and inſure a high price to the ſeller. To the conſumer, the trial by the ſaccharometer is a much more certain teſt; as, whatever the weight of grain may be, if it contains little ſaccharine matter, its nutritive qualities will be ſhort in proportion. That circumſtance, and that only, is the cauſe of the marked preference we daily ſee given to the grain raiſed in the lower parts of the county; which, by enjoying the advantages it does, arrives at maturity with all the qualities it ought to poſſeſs.

Beſides the trial by the ſaccharometer, there is another, though a much more uncertain teſt of the value of grain raiſed in the different parts of the county; namely, the *flavour*: Every perſon of judgment, who has had an opportunity of comparing

comparing and making himſelf acquainted with the productions of the early and late parts of the county, can with great eaſe diſtinguiſh them by the taſte, particularly the oat-meal, the taſte of which is in general ſo inferior to what is made in the low country, as to ſell from one to two ſhillings per boll cheaper.

It would be at once tedious and difficult to deſcribe, with accuracy, the climate of each diſtrict, or the cauſes connected with it; perhaps, the moſt certain way of forming a right idea of it is, by marking the period at which the harveſt commences in each. The eaſt part of the county is from a month to five or ſix weeks earlier than the hills. The intermediate grounds are later in proportion to their elevation; but ſoil, and other circumſtances, form ſeveral exceptions to this rule.

The ſnow in the later parts of the county, ſeldom continues long; in the immediate vicinity of the ſea, it does not lye at all; but in the Lammermuir hills, it ſometimes continues for three months together; and there are inſtances of its continuing, on ſome parts on the north of theſe hills, till the middle of June. This laſt is however a rare occurrence, and only happens when the ſnow has been much blown during the Winter, and the following Spring happens to be cold and late.

Upon the whole, the climate of Eaſt-Lothian, from its variety, ſeems better adapted to the different kinds of huſbandry than almoſt any other in the kingdom; and the perfection of its rural economy may, with truth, be aſcribed as much to its favourable ſituation, as to any other cauſe.

TO THE CONDUCTORS OF THE FARMER'S MAGAZINE.

Curſory Hints on Agricultural Publications.

GENTLEMEN,

ALLOW me to offer my beſt wiſhes for the ſucceſs of your intended publication, which comes forward at a proper time, and promiſes to be attended with the happieſt effects, if conducted agreeable to the liberal principles laid down in the *Proſpectus*. To promote a ſpirit of inquiry and experiment, is, at all times, a laudable object; for it is only upon the ſolid foundation of facts and obſervations, that a juſt ſyſtem of huſbandry can be erected.

I was extremely ſorry to learn, from a notice on the cover of the Agricultural Annals, that ſuch publications are not very popular among our ſouthern neighbours. The ingenious editor therefore recommends, that gentlemen, or their ſtewards,

ſhould intimate, at the *audit* or counting day, *that favours would not be granted to thoſe tenants who did not take in the Annals;* which is a ſure proof of the bad taſte that prevails amongſt that uſeful claſs of men; for, with perſons of diſcernment and information, coercive meaſures, in my humble opinion, would be totally unneceſſary. In order that you may not be obliged to reſort to this new-faſhioned way of procuring readers, I beg leave to ſuggeſt, that diligence, judgment, and impartiality, will be the beſt preventatives. While the public always wiſh to deal upon the principle of "value received," they are generally diſpoſed to countenance and reward every perſon who furniſhes them with wholeſome inſtruction and rational entertainment. Yours, &c.

Amicus.

FOR THE FARMER'S MAGAZINE.

Queſtions upon General Subjects of Agriculture.

In order that ſuch perſons as wiſh to promote what muſt be conſidered the true intereſt of Britain, and are capable of communicating their knowledge, may be at no loſs in the choice of ſubjects, we ſubjoin a liſt of ſeveral leading Queſtions; Anſwers to which will be highly acceptable.

1. Whether is it moſt advantageous to the State, that land ſhould be cultivated by proprietors; or, that a right to cultivate the ſoil ſhould be aſſigned, for a limited time, to other perſons, upon certain terms, preſtations, and reſervations?

2. By which claſs, proprietors or tenants, have improvements been moſt generally introduced?

3. What proportion of the produce is the poſſeſſor of an arable farm capable of paying to the proprietor, upon the ſuppoſition that three-fifths of the ſame are under corn, and that the crop, upon an average of years, ſhall be ſeven bolls per acre; one-fifth under clover and paſture; and the remainder, one half under turnips and potatoes, and the other half plain Summer-fallow: It being underſtood, that the poſſeſſor ſhall receive legal intereſt for his capital ſtock, a ſufficient allowance for upholding his ſtock, ſo as it may be equally valuable at his departure from, as at his entry to the farm; and that his perſonal income from the farm ſhould not be leſs than what is uſually acquired by merchants and manufacturers, who inveſt a capital of a like extent in their reſpective trades?

4. Whether

4. Whether is it conducive to the public good, that reſtrictive covenants ſhould be laid upon tenants? and, if theſe are for the public good, to what extent ſhould they be impoſed?

5. What is the moſt proper ſize of an arable farm, where the growing of corn is the chief object, and the graſs ſyſtem only conſidered as meriting ſecondary attention?

6. Whether are ſmall or large farms moſt for national advantage, holding in view the intereſt of proprietors, the comfort and welfare of the tenants, and the benefit of the State?

7. Does the ſize of a farm affect the population of the country, under ſimilar management? Or, does the number of people, upon a given ſpot of ground, depend upon the ſyſtem of huſbandry adopted: that is to ſay, Whether the land is principally kept in paſture or tillage, and whether improvements are neglected or practiſed?

8. Has the population of the agricultural counties of Scotland increaſed, or decreaſed, within theſe 50 years? and, If it has decreaſed, What are the cauſes which have occaſioned it? And how were the people employed in former times, when the cultivation of theſe diſtricts was confeſſedly imperfect?

9. Has the condition of the labouring peaſantry been meliorated within theſe fifty years? It is not meant here to enquire, whether wages have been raiſed; but, whether are they better fed, better clothed, and more comfortably accommodated?

10. Whether is it moſt for the public good, that the ground ſhould be ploughed by horſes, or by oxen, holding in view the original outlay in purchaſing the ſtock, the expence of ſupporting each kind, the quantity of labour they are capable of performing, and the value of the animals at the latter end? The attention of thoſe who work, or have worked oxen, is particularly requeſted to this queſtion.

11. What is the ſum, per acre, required to ſtock a farm of arable land, where the horſes and implements are of the beſt kind, and where the tenant enters at Whitſunday, and cannot receive any benefit from the farm, till the ſucceeding crop is reaped?

12. If land is excluſively kept in graſs, Whether is the State equally benefited, as if aration was occaſionally introduced?

13. Does graſs land improve, when kept to a great age? and if it does, Is the improvement equal to what may be gained from breaking it up, fallowing it after a few crops, and ſowing it down with freſh ſeeds?

14. If land is kept in graſs, Which is the moſt profitable way of ſtocking it, with cattle, or with ſheep? If with the former, Whether is the large or ſmall kinds moſt advantageous? If

with the latter, Whether is the ſhort Highland ſheep, or any of the varieties of the white-faced kind, moſt profitable?

Any anſwers to this queſtion, ſhould be regulated by the ſoil, climate, and ſituation of the farm; and by the demand afforded at the contiguous markets, where the ſtock is to be re-ſold.

15. Is there a neceſſity for ſmearing ſheep? and, What is the beſt method of doing it, for the ſafety of the animal, and of the leaſt prejudice to the wool?

16. Is the milking of ewes of advantage or diſadvantage to the farmer?

17. Whether are turnips moſt profitably uſed in feeding cattle or ſheep? If by the former, Whether ſhould they be conſumed at the ſtall, in an open yard, or in a graſs park? If by the latter, Whether ſhould the ſheep be confined in hurdles, or ſtaiks upon the ſpot, or have the turnips brought to them in an adjoining graſs field? and, Will the expence of carriage be repaid by the ſuperior value of the animal?

18. Whether ſhould turnips be raiſed according to the broadcaſt way, or in drills? and, If they are taken as a fallow crop, In which method will the land be cheapeſt and moſt effectually cleaned?

19. What is the cauſe of black, or ſmut, amongſt wheat? and, if the cauſe cannot be aſſigned, What is the beſt preſervative againſt this diſorder?

20. What is the cauſe of the *curl* amongſt potatoes? and, Is any other method found out to prevent it, than by procuring freſh ſeed from high lands, or late ſoils, where it was not fully ripened?

21. Can waſte lands be improved in a more profitable manner, than by planting them with barren trees adapted to the ſoil and climate? and, What may be the expence of planting 100 acres of ſuch land, fencing it completely, and training the trees up? and, Whether the value of the graſs, and the thinning of the trees, in a few years, would not exceed any profit which could accrue from the land in its original ſtate?

This laſt queſtion is ſo materially connected with the welfare of the kingdom, that we cannot but recommend it to the notice of thoſe who are verſant in matters of this kind, with the greateſt earneſtneſs. It is obvious, that large tracts, in almoſt every county, cannot be improved in any other manner; and, while we are dependent upon foreign nations for a ſupply of timber, it is an object of importance to inquire, Whether it is not in our own power to raiſe a ſufficient quantity at home, and whether this might not be done with profit to thoſe who embarked in ſuch undertakings?

Though

Though we have ſuggeſted the above as leading queſtions to our correſpondents, we by no means attempt to confine their inveſtigations within ſuch narrow bounds. Any fact, which will throw light upon the huſbandry of Britain, or contribute to promote its further improvement, will be acceptable. Freedom of inquiry we wiſh to encourage; and thoſe who chuſe to render us aſſiſtance in the undertaking we have embarked in, may confidently rely, that their favours will be gratefully acknowledged.

Queries upon Practical Subjects, to which Anſwers, founded upon Experience only, are required.

Q. 1. Have any experiments been made upon the cauſes of ſmut in wheat? What are their reſults, and the remedies that have been found moſt effectual in palliating or preventing the diſtemper?

Q. 2. On the blight in wheat, with the remedies that have been found moſt uſeful?

Q. 3. On the curl in potatoes, with the remedies that have been tried and found moſt uſeful?

Q. 4. On the curl in beans, with the remedies, &c.?

Q. 5. On the deſtruction of ſlugs, with the remedies?

Q. 6. On the deſtruction of inſects, with the remedies?

Q. 7. On the rot in ſheep, with the remedies?

Q. 8. On the cheapeſt and moſt economical mode of feeding horſes, black cattle, &c. with the reſults of ſuch trials as have hitherto been made?

Q. 9. On the feeding of hogs, and the articles that have, from experience, been found moſt uſeful in fattening them with the leaſt expence?

Q. 10. On the feeding of poultry, with the cheapeſt and beſt articles for that purpoſe?

Q. 11. Compariſon between the advantages of feeding with grain in a broken or unbroken ſtate?

Q. 12. Whether do Autumn, Winter, or Spring tillage, conduce moſt to the fertility of the ſoil? and for what crops are they beſt adapted?

Q. 13. What degree of tillage has been found beſt adapted for different ſoils, and at what ſeaſons?

Q. 14. What are the crops to which particular ſoils are beſt adapted?

Q. 15. What are the manures adapted to each ſoil?

Q. 16. What quantity of manure ought to be laid upon each ſoil, ſo as to afford ſufficient nouriſhment to the crop, without any part of the manure being loſt?

PART II.

Review of Agricultural Publications.

View of the Agriculture of Middlesex, *with Observations on the means of its Improvement, and several Essays on Agriculture in general; drawn up for the consideration of the Board of Agriculture: By* John Middleton *Esq. Landsurveyor.* 597 *pages.* Nicol, *&c. London;* Creech, *Edinburgh.*

The utility of a National Board, for promoting and superintending internal improvement, being apparent, it must excite surprise that Britain was so long destitute of such an establishment. *Hartlib*, a respectable writer of the last century, warmly suggested the propriety of appointing a director of husbandry, under the authority of Government; and several intelligent persons have, upon different occasions, expressed a similar sentiment. The carrying such a measure into effect, was, however, reserved for Sir John Sinclair, Baronet, whose patriotism and perseverance are universally known and admired. Under his auspices, the present Board of Agriculture was opened in July 1793.

The first, and certainly the most rational plan that could be adopted by the Board, was, to ascertain the actual state of husbandry throughout the kingdom, to serve as a foundation or ground-work for future operations. Under their authority, surveys of every county have been made, printed, and circulated; several of which, after being amended and enlarged, are now reprinted. The survey of Middlesex is selected as the subject of the present observations. Two reasons determined this preference: 1*st*, Middlesex possesses many advantages over almost every other county, from its comprising the Capital of the British Empire, the seat of Government and Legislature, of the Law, of Literature, and the Fine Arts; where all the families of the first rank and wealth generally reside during the sitting of Parliament; and where the business of the richest merchants, bankers, and citizens, is carried on to an extent that is unequalled in any other part of the globe: And, 2*dly*, Because this work, being mentioned by Mr Pitt in the House of Commons, when the income tax was under consideration, gained thereby a considerable share of public notice *.

Middlesex,

* It is said, a similar circumstance first brought Dr Smith's valuable work, "The Wealth of Nations," into public notice. Charles Fox quoted it in Parliament, and every body flew to peruse that celebrated performance..

Middlesex, from local circumstances, does not possess within its bounds such extensive means of agricultural information as many other counties. It contains only 179,200 statute acres, of which not above one-tenth, or 17,500 acres, are under corn crops; the remainder being either occupied by houses, gardens, or nursery grounds; or used for raising hay or pasture grass for supporting milch-cows, which in this district are necessarily very numerous. Such a small portion of it being therefore under the plough, and the cultivation not of the most perfect kind, renders this district (fertile as it otherwise is) rather barren in the sources whence agricultural knowledge can be collected.

Mr Middleton has, however, amply supplied this local defect; and, by extending his inquiries to general subjects of rural and political economy, has, upon the whole, presented to the public a work well calculated for conveying, not only instruction, but amusement. Whether the extraneous matter he has introduced, be consistent with the title of the work, is a problem we do not pretend to solve; nor are we disposed to call in question the propriety of extending the survey of the metropolitan county, or of discussing subjects therein, which generally affect the interest of the whole empire.

After a sensible introduction, wherein Mr Middleton expresses his surprise that Agriculture, 'to which we owe not only many of the comforts and conveniences of life, but even the means of existence, should so long have been neglected and almost despised,' he proceeds, in the execution of the work, agreeable to the plan laid down by the Board for the direction of their surveyors; and to this he has added a number of additional sections. We have heard several objections to this plan, which we are inclined to think have some weight. Uniformity, however desirable in other respects, cannot be obtained in a detail of rural affairs; for different districts contain different means of information; and hence we meet with some of these publications, like Sterne's works, with little more than blank chapters and sections. Besides, this uniformity occasions a sameness in the surveys, which, not to say worse of it, is calculated rather to tire, than instruct or entertain the reader, and somewhat like what he feels on a journey through a long flat country, where no variety prevails in the prospect before him.

Mr Middleton, notwithstanding his good sense, seems very much under the influence of professional prejudices. In the chapter on the State of Property, page 34. *& seq.* he describes, in a very animated manner, the loss sustained by landed proprietors, from having their estates under the management

ment of London attornies; and points out the character of a perſon fit for ſuch an office. In the firſt part of the obſervation we heartily agree with him; for the agency of attornies has not only laid the foundation of much trouble and litigation to both landlord and tenant, but, by the abſurd covenants they have introduced, have impeded the progreſs of agriculture in a very great degree. When he details the qualities neceſſary to be poſſeſſed by perſons to whom the direction of eſtates ſhould be intruſted, he, in a great meaſure, reduces the farmer to a cypher. In ſhort, he wiſhes to inveſt the agent with a power, which no perſon whatever ought to poſſeſs over the affairs of another; and allures proprietors to give them this power, with a promiſe, which certainly is very tempting, no leſs than that of doubling in moſt inſtances the value of their eſtates, without laying out a ſingle halfpenny, more than paying the ſalary of an agent. *The proprietor, who refuſes to have his revenue doubled upon terms ſo eaſy, muſt be blind indeed to his own intereſt.*

The character given by Mr Middleton, of the Middleſex *farmers*, is illiberal in the higheſt degree; and we truſt will be omitted in the future publications upon the rural economy of that county. It requires no ordinary opinion of one's ſelf, to warrant the ſpeaking of others in terms ſo diſguſting and diſreſpectful: In ſhort, this part of the ſurvey ought to be expunged.

When characteriſing the rural artificers, he ſays, page 54—

"The ordinary wheelwrights and ſmiths of Middleſex have no ideas of machinery, nor have they a capacity for executing any thing from drawings or ſpecifications. The generality of the farmers' labourers are equally ſtupid, and unwilling to execute their work in any way to which they are not accuſtomed. Hence, the difficulty of introducing any thing new in the implements or practice of huſbandry, is almoſt inſurmountable. Even the moſt trifling alteration, or deviation from the old ſyſtem, is reſiſted, both by the artificers and labourers, and every poſſible obſtruction thrown in the way of the farmer, to prevent what they deem an unjuſtifiable innovation on the eſtabliſhed cuſtoms of the place. It is abſolutely impoſſible to get a plough, a thraſhing-mill, a winnowing machine, or indeed any other implement of huſbandry, made on the beſt principles, by the country artificers of Middleſex; and it is not much leſs difficult to induce the labourers to uſe them, when they are brought from any other parts. Thus, the farmer is reduced to the diſagreeable neceſſity of treading in the ſteps of his grandfather, though the practice may be, and in many points frequently is, at war with his own judgement and inclination."

If

If these things are true, the Middlesex farmer is in a most uncomfortable situation.

The subject of *Tithes* is considered in a just light, and treated in a more manly way than by several other surveyors, who, notwithstanding they disapprove of this tax, seem afraid to point out its pernicious consequences. We extract the following passages with pleasure:—

"The parish of Hutton, in Essex, was much occupied by the suckling of calves. The clergyman insisted on taking the tithes in kind. The inhabitants were willing to set out one tenth of every meal's milk, and it was the only means they had of continuing the suckling business.

"This, however, would not content the parson.—No; he insisted on having *all* the milk of every *tenth day*, though he must know that it would ruin their suckling system. They of course resisted; the parties were several years at law, and at last an unreasonable composition was obtained from the farmers.

"The success of these, and like cases, stimulated a vicar of Battersea to draw the tithes of that parish in kind, which was continued for two or three years, during which time nothing was more common than to meet his carts in the streets, retailing his tithes, with a person in each, vociferating, "Come, buy my asparagus!—"oh rare cauliflowers!" &c. &c.

"A few instances, equally oppressive with these, have happened in every county in England; and the necessary consequence is, that they have severally put a stop to some expensive, but promising improvements. Every matter of this kind becomes a subject of general conversation among farmers, and of course prevents their making the like attempts. *In short, an act of Parliament to prohibit the improvement of land by any considerable expenditure, would not more effectually do it than the tithe laws.*

"Had tithes never been established, happy would it have been for this country, and still more so for the clergy. They are a powerful cause of many quitting the church, and of creating and supporting sectaries: they are the never-ending source of ill-will, quarrelling, and litigation; and are, unquestionably, one great cause of the continuance of so much common and uncultivated land in these kingdoms. Within the narrow limits of my own knowledge, several premeditated bills of inclosure have been given up, rather than the land should be subjected to yield tithes in kind, after the great expence of the act, the commission, the survey, the making of new roads, the building of bridges, the fencing and erecting new buildings, and cultivating the land,—should be incurred.

"A meeting was lately held, for the purpose of considering an application to Parliament for inclosing the commons above Pinner, in this county. It did not suit the rector to attend the meeting; he

he therefore sent his proposal in a letter, which was, that a particular part of the commons, containing 300 acres, should be allotted to him in one piece, inclosed with a ditch, bank, and park-paling, and maintained in good repair for ever, at the expence of the other persons who had a right of common. As such an *unreasonable* request could not be complied with, it of course defeated the intended application, and the land still continues in common.

" For about 794 years after Christ, tithes had no establishment in this island; and *then*, only over a small part of it, till about the year 854, when they were extended to the rest of England. The occasion of their being given, is a powerful reason against their continuance. It was at a time, too, of great superstition and gross ignorance; and tithes are continued to these days, by a barbarous policy, which sets an insurmountable obstruction in the way of every great improvement, and lays an intolerable burden on the most virtuous and valuable class in society, to which half the property in these kingdoms contributes nothing. The operation of this tax is, to keep down or reduce the produce of the earth to much less in quantity than it would otherwise be, and of course to increase the price, and promote our dependance for bread on the importation of corn from foreign countries, which could with ease be raised at home.

" Tithes create grievous heart-burnings on account of their *partial* operation, and which is visible in most parts of this county, by a very great number of the most wealthy persons living in expensive houses, or carrying on the largest manufactories, and who pay to the clergyman nothing, or, at the most, only a few shillings a year, as a composition in lieu of the tithe of a garden. But mark the reverse: The smaller farmers are a very numerous class in society, supporting their families by the utmost exertion of their industry: many of them are unable to keep the wolf from the door, although themselves, their wives and children, would think it an indulgence, could they afford to fill their stomachs with the coarsest fare. Yet will the tithe laws not fail to compel such miserable, but valuable beings, to pay a sixth, a fifth, or even a fourth, of the rental value of their land; and, in some cases, more than the rent. Thus the poor farmer pays to the clergyman from 10l. to upwards of 100l. a year, while his wealthy neighbour does not pay so many shillings.

" Every possible argument in favour of tithes upon land, in exclusion of houses and other property, is insupportable. Why tax the land to build churches? Does the land go to them? Is it benefited by them? There is not, nor can there be, any connexion whatever between the land and the church. Religion, in a word, is a mere *personal* concern; and, of course, every possible expence relative to it, ought to be defrayed by a *personal* tax, without reference to any particular species of property. A greater

greater absurdity can hardly be found, than to tax land, houses, money, stock in trade, merchandise, shipping, &c. for the support of the church. Land has certainly no more analogy than shipping, to the church; yet, no one ever thought of taxing shipping for the support of it. Neither, I repeat, ought land to be assessable for that purpose."

Mr Middleton is a friend to *Leases*, and thinks the withholding them is a powerful bar to improvements. He is also an advocate for the tenant having power to sell or assign his lease, and thinks it bad policy to deny him that liberty; sentiments in which we heartily concur.

Under the article of *Expence and Profit*, (a section which ought not to have been included in the plan laid down by the Board) we notice a statement of the produce of 150 acres of grass land, which is supposed to yield the farmer 2l. per acre of profit. We have no idea that any land will admit of being annually cut for hay for any length of time, unless it is very frequently recruited with dung, and cannot think the quantity of dung applied (300 loads) would prevent its progressive deterioration. We know no method so effectual to scourge land, as to cut hay from it every year; indeed the crops in the neighbourhood of London (which are but poor indeed) corroborate this doctrine.

Speaking of the *Implements of Husbandry*, Mr Middleton makes a comparison between the swing plough, and one of the same construction upon wheels, and very justly gives the preference to the former. No excuse can be admitted for using the latter, except where unskilful ploughmen prevail; and, from our observation, good ploughmen are very scarce in Middlesex. He justly reprobates the swing plough commonly used in that county, which is, without question, the most awkward implement for tilling ground that can be imagined.

The *Commons* in Middlesex are next described; and the great disadvantages sustained by the public, from their being allowed to remain in that unproductive state, are detailed in a perspicuous manner. It must excite astonishment, that, in this county, where the means of improvement are so numerous, the waste lands should equal the quantity annually sown with corn; yet such is the fact. Mr Middleton states, that the neighbourhood of commons is unfriendly to the health and longevity of mankind, which is an additional reason for improving them.

The calculations, p. 111, respecting the number of persons wholly supported by agriculture in England and Wales, are curious.

"Cultivators

" Cultivators of farms, six persons to every 100 acres, is — — — — —	2,340,000
Ditto of gardens, hop-grounds, nurseries, &c.	300,000
Smiths, wheelwrights, bricklayers, masons, carpenters, painters, plumbers, glaziers, various manufacturers of furniture, woollen cloths, and making it up, linen, and making it up, leather, and making it into shoes, boots, &c. hose, harness and saddlery: as much of each of these descriptions of persons as are wholly employed by the cultivators of the soil, men, women, and children, about seven persons to each farm of 100 acres, is — — —	2,800,000
The like of millers, bakers, maltsters, brewers, distillers, starchmakers, dealers in corn, and persons employed in the commerce of corn — —	500,000
The landlords of farms — — — —	40,000
Persons supported by taxes on the produce of land	120,000
Total —	6,100,000

It will be evident, at one glance, that these calculations are more fanciful than just. Political arithmetic has lately been much in vogue, and who would not follow the fashion?

The section upon *Tillage*, page 138, confirms what we have already mentioned relative to the imperfect cultivation of this county. We select the following passage:—

" In general, the ploughing is deep, and with a wide furrow, which, of course, very much increases the weight or draught, and necessarily requires a strong team, which, moving with a very slow pace, as all heavy teams do, performs but very little work in a day. It is not one time in fifty that they go to plough with so few as three horses; but mostly, for the lighter work, using four; on rather stronger land, five, and even sometimes six: in every instance drawing at length, or one before the other. In May 1796, I saw, in one day, two teams, with six horses in each, and three men to attend each team; namely, one to hold the plough, and two to drive the horses, ploughing with a wide furrow, about three quarters of an acre per day. Indeed, these long heavy teams of horses do not, on an average, plough more than four or five acres in six days; at an expence, to the owners of such teams, of about twenty-seven shillings an acre for one bad ploughing. I have seen a barley soil receive the last ploughing previous to sowing turnips, with a team of five horses, and two men to attend them; and, at the same time, a team of six horses in length, with three men attending, were giving the first ploughing to a fallow."

It

It is our opinion, that if the system of ploughing in this county was reformed, much more gain would accrue to the proprietors, than by appointing land-doctors and agents, as is eagerly recommended by our author.

We do not coincide in opinion with Mr Middleton, respecting the breadth of ridges on wet lands. Experience justifies us in saying, that the ground, in every case where the bottom is wet, ought to be raised up, which narrow ridges will not admit, and that the breadth of the ridge, in such cases, should always be in direct proportion to the depth of the soil.

A striking instance is afforded, page 148, of this work being rather a general survey of the kingdom, than confined to a single county; for the practices of five different counties, viz. Aberdeen, Merioneth, East Lothian, Dunbarton, and Perth, are given in one single page.

We apprehend the rotations of cropping recommended in this work, are liable to exception, and would neither prove profitable to the farmer, nor beneficial to the ground. For instance, take rotation, number 4th,

Peas
Beans
Corn
Clover
Tares
Turnips

which is a rotation that no man in his senses would practise. If there be a just and true principle in farming, it is, that leguminous and culmiferous crops alternately afford the greatest possible return from the soil. Whatever might be the profit from the above crops, in the vicinity of a great city, we are certain that, in ordinary cases, a farmer would pay little or no rent, if he followed such a rotation. Mr Middleton puts too much dependence upon the merits of a rotation; for every thing must depend upon the manner in which the rotation is followed out in all the different processes of management. When he speaks of taking three green for one white crop, upon the worst or more exhausted land, he appears not to have paid due attention to his subject. Bad lands are not calculated for green crops; and experience proves, that it is easier to raise a heavy crop of wheat, than a crop of turnips, upon inferior soils.

Our author says, page 167, that the old doctrine of fallowing for wheat, is exploded; but we think he is rather hasty in making such an assertion. In some situations, it is an easy matter to lay aside Summer fallow, and to raise wheat after green

green crops; but we are of opinion, that no man, who is generally acquainted with the soil and climate of Great Britain, will attempt to explode Summer fallow altogether. The advanced state of agriculture has already, in a great measure, superseded the necessity of resorting so frequently to the ancient practice of fallowing for cleaning the ground; but while we mention this, we are at the same time confident, that a great proportion of the arable land in the kingdom could not be kept clean or in good order, without being completely wrought during the Summer months. In those counties where the harvest is early, and the crops removed from the ground before the heat of the sun is abated, the land may be wrought in a very perfect manner after carrying a crop; but in all situations where the harvest is late, and no tillage can be given before Winter, it will be found absolutely necessary to practise Summer fallowing at stated periods, without which, the soil, in process of time, would be overrun with weeds. This remark is supported by the condition of the lands in the vicinity of almost every great town, where, from high rents and stock of manure, the farmer is tempted to proceed in raising corn crops much longer than the rules of good husbandry will justify. A number of improvers have gone from one extreme to another; from censuring the old mode of one fallow to two crops, which was a very improper practice, they have gone the length of condemning Summer fallow altogether.

Speaking of the management of *Meadows*, Mr Middleton says, pages 224 and 225.—

'Manure is invariably laid on meadow land about the month of October, while it is sufficiently dry to bear the drawing of loaded carts without injury; and when the heat of the day is so moderated as not to exhale the volatile parts of the dung.

'This large tract or district of *clay land* would have been of little or no value *in a state of aration*. The difficulty of tilling it; the expensive teams which must have been employed on it; the few months in every year when it could be ploughed with success; and the *uncertain* produce of such a soil, are circumstances which *would have kept down its value to little or nothing. But, mark the difference! Laying it down to permanent grass, has been the means of advancing its rent to 3l. an acre, and of its producing, in a medium of seasons, two tons of hay per acre, of the highest quality in the world for the feed of horses.*'

That clay land, especially where manure can be purchased in quantities, is of little or no value, we expressly deny. No kind of soil will pay so well for manure, nor will any yield such profitable returns of wheat and beans, as clay and heavy loam,

loam, if well cultivated. This is not a matter of opinion, but confirmed by the experience of farmers in every quarter.

Clay land has seldom been considered as lying in the most profitable state, when kept permanently in grass, nor does the extent of the produce mentioned above, equal what might have been raised by sowing clover and rye-grass amongst a fallow crop of corn. We are of opinion that no land whatever should be kept exclusively in grass, and that heavy soils especially stand in need of being often recruited with fresh seeds.

Under the article of *Feeding*, we find the following passage:—

'I am fully persuaded that all the straw in haulm in the kingdom, over and above what is indispensibly necessary for thatching buildings, and littering cattle, might be easily converted into wholesome food, and made to contribute materially towards the rearing and support of lean stock, by the simple operation of cutting it into chaff; and, in some cases, by the commixture of roots and other articles, in order to render it more palatable, and to induce the cattle to eat an increased quantity. When so prepared, it should be given to them in mangers of rather a large size, and calculated to prevent waste. There can be no doubt but this method of preparing and consuming straw, haulm, &c. would tend considerably to increase the number of black cattle; and, when compared with the present practice of treading and rotting it into manure of a poor quality, must be considered of great national importance. Thus the straw, &c. is not only rendered fit for the support of live stock; but, by being digested, and passed through their bodies, it must become a much more highly enriched manure than in the ordinary way of treading and rotting.'

This doctrine is certainly questionable. Query, What supports the animal? Are not the finest parts of the straw appropriated to that purpose, while the inferior or feculent part is thrown off for dung? It is very certain that a quantity of straw eaten, assists to ferment the remainder; but if all the straw in the kingdom were cut into chaff, and passed through the intestines of an animal, we believe that both the quantity and quality of dung would be greatly curtailed.

Mr Middleton very justly is of opinion, that improvements are executed at less expence by farmers than by proprietors; and recommends, as the best mode of letting lands, that the landlord should grant leases proportioning the rent and duration of the lease, to the nature and supposed expence of the intended improvements. We join him in opinion, that this mode would render complete justice to the interests, and promote the advantage, of both parties.

Upon the subject of *Paring* and *Burning* our opinions are not very different from those entertained by Mr Middleton. We are aware that those who have made chemical science their study, do almost unanimously condemn the practice, while the generality of professional husbandmen as eagerly maintain its utility. If Hounslow-heath, Finchley-common, or other wastes, were to be put in a state of aration, we know of no method so effectual as to pare and burn them, in the first instance; but, upon the other grass lands of Middlesex, we consider such an operation as wholly unnecessary.

Upon the subject of *Irrigation* our author speaks rather in too high terms. After stating the advantages attending this mode of improvement, he says:—

"Forty acres of good water meadow will support, in the greatest luxuriance, 500 Wiltshire ewes and lambs for six weeks, from the middle of March to the 1st of May, during which time they will improve one shilling a week, or pay *three pounds fifteen shillings* per acre, at a time of year when all other farmers are distressed for a want of food for their stock. In Middlesex, it would still be more valuable, as five pounds worth of hay might be mown off it the first week in May."

The above exceeds any thing we have met with respecting the produce of grass land; for it is only the best meadow that will feed 5 ewes and lambs, per acre, from the middle to the 1st of May, and the greatest part of the pastures in the kingdom will not support near so many.

A very distinct account is given, page 328, et seq. of the manner in which milk cows are kept in the vicinity of the metropolis. The expence per week is stated at 7s., or 18 l. 4s. per annum, and the produce 29l. 10s., leaving a profit of 11 l. 6s. per cow; but this includes allowance for interest of stock, rent of buildings, losses, attendance, and all other expences.

The dung and urine of sheep, at 20 miles or more from London, is stated to be worth about 5s. per head per annum, which in many cases is more than the rent of the land. Mr Middleton deals too much in calculations of this kind, and appears to build them more upon conjecture than experiment. His observations upon the sheep stock in south Britain, are given in the same manner, and seem to have been more the result of information than observation.

The section concerning *Horses*, and their use in husbandry, compared with *oxen*, contains much valuable matter. The mode of feeding farm-horses is amply detailed, and the expence per annum said to be 35l. Mr Middleton is inimical to working

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ing oxen, and gives ſolid and ſubſtantial reaſons for preferring horſes in carrying on farm work. It appears that no more than 13 oxen are wrought in the whole country, which is a convincing proof of the eſtimation in which theſe animals are held by the Middleſex farmer.

Public houſes are ſtated to be more ruinous to the lower orders of ſociety than all other evils put together. One reaſon given for their increaſe is, that ſo many brewers and diſtillers are in the commiſſion of the peace.

That public houſes or dram-ſhops are deſtructive of morals, and inimical to the welfare of ſociety, is a point upon which there can be no difference of opinion; but that their increaſe is owing to the numbers of brewers and diſtillers being in the commiſſion of the peace, we deny. The far-fetched and ill-founded obſervation of the man whoſe earnings amount only to 9s. per week, bringing home a ſhilling more at the end of it than the perſon who earns 12s., does not carry conviction along with it. We ſhould be glad to enquire what tie of virtue, or ſenſe of duty, could influence the one more than the other. The temptation to both is the ſame; and were we only to reaſon upon the ſubject, we would ſay, that the perſon who had the ſmalleſt income, with a large family to ſupport, would be the firſt to diſſipate a part of it, in order to drown care. Much of what is ſaid on this ſubject can be conſidered only as declamation.

The riſible faculties are not a little excited, when we obſerve our author recommending milk and water to the labourers, inſtead of malt liquor. A hundred thouſand volumes would not convince an Engliſhman, that the former is a better beverage for allaying his thirſt, and enabling him to perform his work, than ale and porter. A manuſcript paper of Sir William Pultney's is likewiſe quoted, wherein the worthy Baronet recommends vinegar and water as an excellent ſubſtitute for other liquors. We are fearful that the obſtinacy of this claſs of people will prevent thoſe ſalutary advices from being ſucceſsful, and that they will rather take their hazard of receiving miſchief from fermented liquors, than give up the uſe of them for any of the ſubſtitutes propoſed.

After mentioning the price of proviſions, which are generally as low in London as any part of the kingdom, Mr Middleton calculates, that each inhabitant of the county, young and old, conſumes 30 ſtones and a half (of 8 lb. each) of animal food, 8 buſhels of wheat, and 1 ton of vegetables, per annum. As for malt liquors, the quantity ſaid to be drunk by the lower ranks, is aſtoniſhing. Take his own words for it.

'There are ſome perſons who do not drink malt liquor at all; moſt people of fortune and faſhion drink it very ſparingly; while great numbers of the lower orders, particularly coal-heavers, anchor-ſmiths, porters, &c. drink it to great exceſs, even, it is ſuppoſed, to the amount of five hundred or one thouſand gallons a year each. Upon the whole, I apprehend the quantity of *malt liquor* conſumed in the county, would almoſt average a hundred gallons per head of all ages and conditions.'

One thouſand gallons per annum, is nearly, on an average, about 14 bottles of ale or porter per day, and is almoſt equal to what is paſſed through many drains, made to carry off the ſuperabundant moiſture from the earth.

In another part of the work, when treating of victualling houſes, Mr Middleton ſuppoſes, "That upwards of three millions of money are expended by the labouring people, upon ale, porter, gin, and compounds, which is 25l. per family of that deſcription of perſons. If wages, on an average be 12s. per week, the amount per an. is 32l. 4s. which leaves only 7l. 4s. for purchaſing bread, butcher-meat, vegetables, and clothes!

The different public markets in London are well deſcribed, though it appears the Lord Mayor (Watſon) affected want of knowledge when appl'ed to for information. Accounts taken from the Cuſtom-houſe books are likewiſe given, which ſhow in a clear light the different quantities of corn imported into and exported from London and other parts of the kingdom. Mr Middleton ſuggeſts, that it would be a uſeful meaſure to licenſe and ſwear the Smithfield ſaleſmen; and likewiſe that they ſhould be obliged to find ſecurity for faithfully executing their office. The latter might prove of advantage to the public, but if a perſon is determined to play the rogue, licenſing and ſwearing will hardly prevent him.

When treating of *Manufactures*, Mr Middleton, with great propriety, ranks Agriculture in the higheſt claſs. He ſtates the farming capital in South Britain at 5l. per acre, or 200 millions, and that the annual produce is 65l. per cent, or 130 millions. From thence he deduces, that agriculture muſt be allowed to ſurpaſs all other manufactures that can be brought into competition, not only as to the groſs amount, but alſo as to its ſuperior uſefulneſs.

We perfectly agree with Mr Middleton in his concluſions, but differ widely from the premiſſes he aſſumes. In the *firſt* place, we do not conſider the quantity of arable land in South Britain to be ſo great as he ſtates it; and we apprehend the commons and waſtes to be more extenſive. In the *ſecond* place, no agricultural capital is required for the land occupied

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by roads, woods, hedge-rows, and water, or as pleasure-ground, and these, by his own computation, amount nearly to four millions of acres. If we add the commons and wastes, which in some counties are one-fourth, and even in Middlesex are one-tenth, of the whole land, and which require a very trifling stock, it will be found that agricultural capital is mostly laid on about 20 millions of acres, and that the amount of this capital will not much exceed one-half of what is here computed. We suspect much that Mr Middleton led the Premier astray, when he founded upon his calculations. Political arithmetic is a deceiving science. The first figure is usually drawn from an hypothesis, and the smallest error at the outset renders the whole calculation delusive and fallacious.

The greatest part of the next chapter, (viz. the 17th, and entituled Miscellaneous Observations) may be termed a most ingenious romance, and we give the author great credit for the fertility of his imagination. The section concerning the depredations committed upon the farmer's property by game and vermin, exceeds any thing we ever saw in the calculation-line. A very fair and well written account is made out, and figures are used to prove, that the farmer sustains an annual loss of ten millions, from moles, mice, sparrows, rooks, magpyes, &c. If we add to this another loss, being 4s. per acre an all the land in England, which the author computes is sustained from thieving, &c. it will appear that nearly twenty millions sterling is the total amount of the damage sustained by the landed interest annually. After this, who will say that farming is a good trade? or rather, who will not be surprised that the whole of the farmers of the kingdom have not long ago been ruined?

The attempt to estimate the quantity of arable land in South Britain has merit, but, from a deficiency of facts, it proves little; for instance, the supposed extent of arable land is first used to ascertain the number of horses employed in agriculture, and the quantity of corn necessary for supporting these horses, is then brought as a proof of the number of acres of arable land; which is certainly a most ingenious mode of calculation.

Our author thinks that one-fifth of the arable land in England is every year under summer-fallow, or in a non-productive state; but we are confident he is mistaken in this opinion, and that the quantity is not so extensive by one half. In several counties there is scarcely such a thing as plain fallow; and, unless it be upon the common fields, such fallows are much less frequent than formerly. Even in the most of places where the tenant is taken bound to have one fallow for two crops of corn, turnips are taken in its place. In-

ſtead, therefore, of two millions eight hundred thouſand acres, we are inclined to believe there are not one million of acres of plain fallow in all England.

Under Chap. 18 (*Means of Improvement*) the number of lawyers, who practiſe in the ſeveral courts, are ſtated to be ſeven thouſand and forty! We believe this is the firſt time that this learned and reſpectable profeſſion was ever claſſed amongſt the means of improvement; though goals and houſes of correction (the number of which are alſo detailed) may very properly come under that deſcription.

A variety of quotations are given from Colquhoun's treatiſe on the police of London, which we hope, for the credit of its inhabitants, contain exaggerated accounts of the crimes committed in the capital, and its vicinity. It is mentioned that 115,000, or nearly one-fifth, are perſons whoſe purſuits are either criminal, illegal, or immoral; or, in other words, that every fifth perſon deſerves the gallows. If ſuch things are true, the fair inference would be, that there is no ſuch thing as a police in the county of Middleſex; or how could the daring offences mentioned in this work be committed with ſuch impunity?

It gave us ſurpriſe to notice a kind of compariſon, p. 480, between the Middleſex huſbandry and that of ſome other counties, wherein the author concludes with a flouriſh in favour of the former. He ſays:

"There is not any land in Middleſex, (the commons excepted) from the well protected and healthy copſes at Riſelip, to thoſe wonders of their kind, the gardens at the Neat-houſes, but what is cultivated, and, for the moſt part, raiſed to an aſtoniſhing degree of fertility."

How can this be reconciled with the accounts previouſly given of the farm-management of the diſtrict? The farmers were ſaid to be unprovided with proper ploughs; the ſervants could not hold, nor the artificers repair them; the lower ranks did little but pilfer and drink, and the higher ranks were inattentive to the management of their eſtates. This is the ſubſtance of what is ſaid concerning theſe matters, and probably it is juſt:—But can the huſbandry of Middleſex be conſidered as perfect, if it is defective in every point leading to perfection? Cenſure is either improperly applied in the one caſe, or unmerited compliments beſtowed in the other.

As many objects are embraced in this ſurvey which will likely be neglected in others, we have devoted a larger ſpace of our pamphlet to the taſk of reviewing it, than in ordinary caſes

caſes can be ſpared to works of the like kind. We have ſtated our ſentiments with candour and freedom upon the different articles of rural and political economy; and, in pointing out the errors of the author, have acted under the impreſſion that we were thereby benefiting the public, and affording him the means of correcting theſe defects when the work comes to a ſecond edition, which it is expected will ſoon happen.

Upon the whole, the Survey of Middleſex may be read with pleaſure, as it contains much important information, though rather arranged in a deſultory manner. Though we have not objected to the great maſs of political arithmetic which the author has introduced, we cannot help remarking, that he would have been more correct, probably as uſeful, and certainly entitled to as much applauſe, had he ſimply confined himſelf to a detail of the agriculture of Middleſex, with obſervations on the means of its improvement. *N.*

ART. II.—*General View of the AGRICULTURE of the County of NOTTINGHAM, with Observations on the Means of its Improvement, drawn up for the consideration of the Board of Agriculture and Internal Improvement; by ROBERT LOWE, Esq. Nicol, &c.* London; *Creech,* Edinburgh.

THE different ſurveys of this kingdom, publiſhed under the authority of the Board of Agriculture, though drawn up agreeable to an uniform plan, prove, in a moſt convincing way, that the ſcheme propoſed to be adopted for detailing the huſbandry of Great Britain, is not perfect, becauſe it is uniform, and that their value and importance muſt neceſſarily depend upon the abilities of the ſurveyor, and the manner in which he diſcharges the duties of his office. In ſome of theſe works we obſerve very uſeful information, reſpecting the preſent ſtate of huſbandry in the diſtrict deſcribed; while the obſervations upon the means of exciting and accompliſhing further improvements, (which is certainly the main deſign of the publication,) are neglected and paſſed over. Others again uſe facts in the manner ſome clergymen do a text, and extend their obſervations to a greater length than may be deemed conſiſtent with the nature of the publication. The latter ſtand a chance, however, of being more acceptable to the public; for this mode admits full ſcope to the talents and abilities of the ſurveyor, and affords him an opportunity of communicating knowledge upon almoſt every branch of rural affairs.

The work under conſideration may be claſſed amongſt thoſe firſt mentioned, and Mr Lowe, in a preliminary obſervation,

acknowledges, that his intentions were " only to ſtate, as far as came within his knowledge, the uſual courſe of huſbandry, the new practices introduced, and ſuch improvements as ſuggeſted themſelves to him, without pretending to enter deep into ſcientific diſquiſition on the ſubject of political regulation, which the reader therefore muſt expect to be but ſlightly touched upon." This obſervation appears to have guided him in the execution of the work; for, while we peruſe a plain, and, we believe, a very faithful deſcription of the preſent ſtate of huſbandry in the county of Nottingham, the means of accompliſhing future improvements, or of removing obſtacles, are only ſlightly noticed.

The *climate* of this diſtrict is deſcribed to be dry, and the harveſt generally early; circumſtances of the firſt importance, and which affect the value of the land much more than is uſually ſuppoſed. In point of ſoil, Mr Lowe divides the county into three diſtricts: 1ſt, ſand or gravel; 2d, clay; 3d, limeſtone and coal land; and theſe he afterwards ſubdivides into ſmaller portions, ſo as the ſubject may be fully comprehended. We have always accounted it a matter of difficulty to preſent an accurate view of the ſoil; which is ſo variable in moſt counties, and many of thoſe varieties approaching one another ſo nearly, that it is almoſt impoſſible to give a map or deſcription of thoſe particulars, without unavoidably falling into error.

In the chapter upon the *cultivation of arable land*, and the rotation of crops, the author mentions, that " the introduction of turnips was of great importance in enſuring a good crop of barley, after being fed off with ſheep; but that till within theſe few years it was not uſual to lay down with ſeeds." He adds, " that the culture of a break, well managed, may be ſtated to be, break up for, 1ſt, turnips, laying ten quarters of lime on an acre; 2d, barley; 3d, rye, ſometimes wheat; 4th, oats, with ſeeds; i. e. white clover and rye-graſs, which are mown for hay, and then thrown open." We may readily ſuppoſe that this rotation will not be viewed by many farmers as a judicious one. The fact is, it is certainly as bad a courſe for turnip land as can be practiſed; but we muſt remark, that this is only followed on the foreſt breaks, where it has been an immemorial cuſtom for the inhabitants of townſhips to take up temporary incloſures, and keep them in tillage for five or ſix years.

Skegs are mentioned in this chapter. Query, What kind of grain are they? A note at the foot of the page bids us turn to the Appendix; but, upon conſulting the place referred to, we receive no other anſwer, than that they are Skegs; or in other words

words, that they appear to be the *Avena Stipiformis* of Linneus. Our author ſhould have attended that he was writing for farmers, and not for botaniſts.

But the greateſt improvement on foreſt lands, is where they are permanently incloſed. We extract, with much ſatisfaction, what is ſtated concerning the Duke of Newcaſtle's improvements on the land at Clumber-park, which originally was a mean heathy ſoil.—

"Amongſt theſe deſerves to be named, in the firſt place, Clumber-park, belonging to his Grace the Duke of Newcaſtle, between ten and eleven miles round, and containing in the whole about 4000 acres, which may be ſaid to be a new creation within theſe thirty years: at which time it was a black heath, full of rabbits, having a narrow river running through it, with a ſmall boggy cloſe or two. But now, beſides a magnificent manſion, and noble lake and river, with extenſive plantations, which will be particularly noticed hereafter, above 2000 acres are brought into a regular and excellent courſe of tillage: maintaining at the ſame time between three and four thouſand ſheep, and are all his Grace's own occupation.

"The following courſes and practices of huſbandry, uſed in Clumber-park, were communicated to me by Mr Birket, his Grace's farmer, a very active and intelligent perſon.

"*On the beſt Land.*—Firſt year, turnips; ſecond, barley; third, clover; fourth, wheat; fifth, turnips; ſixth, barley; ſeventh, ſeed; which lie from five to ſix years.

"*On bad Land.*—Firſt, turnips; ſecond, oats, with ſeeds, which lie as before. The whins are ſtubbed conſtantly, to hinder his being obliged to break up ſooner. He keeps a year's ſtock of dung before hand, and lays it on for turnips in autumn, ploughing directly. He harrows and gets out the twitch, (called in ſome countries couch graſs) as uſual in the ſpring. He lays two chalders, or eight quarters of lime an acre for turnips, but never after in that courſe."

The following paſſage, on the culture of *roota baga*, or Swediſh turnip, we recommend to the attention of our readers.—

"The roota baga, or Swediſh turnip, is now cultivated by a few farmers in this diſtrict. It appears to be ſuperior to the common turnip in many reſpects, particularly in hardineſs, as it ſtood the laſt ſevere winter without the leaſt injury. It is eat with greedineſs by all animals, from the horſe to the ſwine. Sheep prefer it to all others: but the material advantage that has been made of it is, the ſubſtituting it for corn in the food of draught horſes; in which it has been found to anſwer the wiſh of every perſon who has yet tried it. The turnips are put into a tub or barrel, and cut ſmall with an inſtrument like an hoe, with the blade

blade put perpendicularly into the ſhaft: a man will cut in one hour as much as ſix horſes can eat in twenty-four. The tops and bottoms are previouſly cut off, and given to the pigs. Horſes, that are hard-worked, look full as well when fed with this turnip and very little hay, as they formerly did when very high fed with corn. The Swediſh turnip ſhould be ſowed early, from the 15th of May to the 10th of June."

The following information on the culture of the roota baga, is given by J. DAIKEN, Eſq. of Nottingham:—

Mr Daiken, † about the 10th of May 1794, ſowed about four acres with the ſeed of roota baga, about 2 lbs. per acre, on good ſand land, worth twenty ſhillings an acre, manured as for turnips, and having been ploughed four or five times; the reſt of the field, to the amount of nine acres in all, with common turnip and turnip-rooted cabbage, all broadcaſt. They were not tranſplanted, but hoed out nine inches aſunder, at three hoeings, at ſeven ſhillings and ſixpence an acre; no other culture. In November began to uſe them for horſes, giving at firſt clover and rye-graſs—hay, oats, and beans; but finding that the horſes did well upon them, left off all corn, and continued them on hay, and the roots only: fifteen were thus fed for about two months, were conſtantly hard worked, and preſerved themſelves in very good condition. Mr Daiken is ſo well convinced that in this application they were worth thirty pounds an acre, that he would, in future, if he could not get them otherwiſe, rather give that ſum per acre for one or two acres, than not have them for this uſe. They loſt their leaves entirely when the froſt ſet in; but the roots were not the leaſt affected, though the common turnips in the ſame field were totally deſtroyed. Paſſengers paſſing through the field cut holes in them, which did not let the froſt injure them, nor were thoſe hurt which were damaged by cattle biting them. Some came to the weight of 16 lbs., and Mr Daiken thinks the average of the crop 8 lbs., and much to exceed in tonage per acre common turnips.

Mr Daiken gave them alſo to hogs, cattle and ſheep. They are excellent for hogs; and ſheep being let into the field before the common turnips were deſtroyed, gave ſo decided a preference to the roota baga, that they would not ſettle on the common turnips, while the others were to be had.

The method of giving them to horſes, is to cut off the top-root, to waſh them, and to cut them roughly with a perpendicular hoe, and then given directly, without keeping them to dry. The horſes ate them with avidity, and ſeemed even to prefer them to corn. Their qualities appear to be ſingular, as they bind horſes inſtead of relaxing them, as other roots do. One mare was kept entirely upon them and ſtraw, worked every day, did well, and never

† Mr Daiken thinks that in general the roota baga ſhould be ſown about a month ſooner than other turnips.

never looked better: this mare was more bound by them than the reſt. They have a ſtrong effect upon making the coats fine, and one or two, affected by the greaſe, were cured by them, as they act as a ſtrong diuretic. In this mode of application, one acre maintained fifteen about two months; and Mr Daiken is ſo well convinced of the utility of the plant, as well as many of his neighbours, that he intends, and they alſo, to increaſe the cultivation much.

Mr Daiken ſuſpects there are two ſorts of the roota baga, becauſe ſome upon cutting are white within, but in general yellow; otherwiſe of the ſame external appearance. The yellow is the beſt."

Mr Lowe is very particular in deſcribing the *Woods* and *Plantations* in this county, and takes up more than one fourth of the ſurvey, or one fifth of the whole work, if the appendix is included, on this ſubject. This is a branch of an agricultural ſurvey well deſerving attention, and which, perhaps, has been too much neglected by the generality of ſurveyors. The climate and ſoil of this country appear favourable to the growing of timber; and we notice, with pleaſure, that the landed proprietors do not neglect this permanent and national improvement; which we hope, from what was mentioned laſt ſeſſion of Parliament by Sir William Dolben and Mr Pierrepoint, will in future be attended to in every incloſure bill.

It appears that there is not much waſte land in Nottinghamſhire, and that what remains is chiefly in rabbit-warrens. The ancient royal foreſt of Sherwood, which was of great extent, may now be conſidered as wholly diſforeſted; for the ſoil is underſtood to have been granted by the Crown to different Lords of the manor, reſerving only, in foreſt language, the *vert* and *veniſon*, or trees and deer, which laſt is now entirely extirpated.

The uſe of *Lime* is very imperfectly underſtood in this county. One gentleman conſiders lime as hurtful without farmyard manure. Another has laid from 1 to as far as 20 chalders, or 640 buſhels, on an acre of cold clay ſoil, and found no benefit whatever. A third limed part of a red clayey loam, and dunged the whole, but ſaw no difference in the crop; and where the heaps were laid, nothing has grown ſince. From theſe particulars, Mr Lowe concludes that the benefit of lime on clays is not fully eſtabliſhed.

We have often remarked, that lime has in many inſtances been uſed at random, no enquiry being made, nor attention paid, to the condition of the ſoil, whether it has been overcropped and worn out, or has lately been refreſhed with graſs,

or

or enriched by dung. From inattention to these particulars, and erroneously considering lime as a manure, in place of a stimulus, much money has been unnecessarily expended upon this article, and many attempts to improve rendered unsuccessful.

One gentleman has been rather more fortunate than his neighbours; for an experiment upon a clay field with him turned out well. But mark the extent of his experience. He thinks it of as much use the second year as the first, and even of service the third! We would say, in answer to this, that it is of more service the second year than the first, being then intimately mixed with the soil; and that its effects, under a proper system of management, will remain undiminished for *nine* or *twelve* years, and will be of use for a great deal more. No doubt, by applying the whip and the spur, it may be wrought out earlier, but this will only happen where improper farming is practised. A very sensible paper from the Reverend Dr Coke of Brookhill, closes this article, which deserves the attention of the Nottingham farmers.

Paring and *Burning* does not seem a favourite practice with Mr Lowe, nor is it with us, but under certain circumstances. When tough coarse sward is first broken up, no operation is equal to paring and burning, for bringing the land into sufficient culture. Without doubt, under good management, no coarse sward should be suffered; but before the whole kingdom is brought into proper order, we cannot join with those who indiscriminately condemn paring and burning.

Mr Lowe thinks weeding is not sufficiently attended to, particularly in the clays, where very foul crops are to be seen. He seems to recommend the Bedfordshire way of weeding beans with sheep, which is a most slovenly custom. Sheep may keep down the couch and annuals when the beans are young, without doing material damage; but, after the crops get to any length, they must be injured and broke over by the sheep; and, what is worse, the roots of the couch being firm in the ground, and not previously loosed by the horse or hand hoe, must, by the time the sheep are removed, have acquired such strength as to prevent them from being afterwards extirpated.

Our author's opinion concerning the *Commutation of Tithes* is rather novel. He objects to that measure, because he thinks it would increase the burden upon the landed property. We shall quote his own words —

'But what weighs most with me is, that in this, and, I believe, most other counties, more tithes are paid by composition than in kind. These compositions, from the desire of clergymen to

to live well with their parishoners, and partly perhaps from habit, are much lower than the real value of the tithe. If, therefore, a general compensation is to be fixed by law, which must necessarily be by understanding persons upon oath, I apprehend much the greater part of the occupiers would, instead of being relieved, find themselves charged with a much heavier expence than before; and, consequently, instead of a general satisfaction, a general complaint would ensue.'

The chief argument which operates with us against tithes, is, that they are a tax upon industry, operating with greater severity upon the active and industrious, than upon the careless and slovenly husbandman. If they were commuted, this objection is at once removed; for the burden to the tenant would be no more than paying a part of his rent to the tytheholder, and the remainder to his landlord. To the farming interest of the kingdom, it is a matter of no importance upon what principles they are commuted; whether at their full value, at a half, or any given rate. It is enough that they are fixed. When that is accomplished, the good farmer will have no partner to share the fruits of his well earned labours. If he has limed, manured, inclosed, and drained, at a heavy expence, and thereby doubled his crops, no man will have a right to claim a tenth share of the produce of those beneficial improvements. In a word, laying aside every question respecting the origin of tithes, the right of impropriators of all descriptions, the animosity which their collection often occasions;—we say, laying these things totally out of view, that a tax, which must necessarily rise or fall according to the exertions of the person who has to pay, or the disposition of him who is to receive it, must be founded upon improper principles; and that few measures of Legislation would be more conducive to the internal prosperity of the county, than a valuation and commutation of tithes.

This work, upon the whole, though rather more concise than we could have wished, displays a good deal of knowledge in the science of Agriculture; but we notice, from the correspondence, that the author has been ably supported by Sir Richard Sutton, Bart. who appears to have taken a considerable deal of trouble in collecting materials for his information.

N.

TRAVELS

ART. III. *TRAVELS through the UNITED STATES of NORTH AMERICA, the Country of the IROQUOIS, and UPPER CANADA, in the Years* 1795, 1796, 1797, *with an Authentic Account of LOWER CANADA; by the Duke DE LA ROCHEFOUCAULT LIANCOURT, Vol. I. Quarto,* 650 pages; London, *Philips, &c.*

SINCE the separation of the United States from Great Britain, a variety of publications have iſſued from the preſs, deſcribing the ſoil, climate, and agriculture of America; but none of them, which have come under our inſpection, deſerve to be compared with the enlightened and circumſtantial work now before us. Influenced by liberal principles, and guided by a ſteady and capacious mind, the noble author has detailed his travels with ſuch preciſion and ability, that the public cannot fail to receive the higheſt gratification from the intelligent information he communicates.

The cauſes which induced the Duke de la Rochefoucault Liancourt to leave his native country, are well known, and reflect the higheſt honour upon his character. A ſteady friend to rational liberty, he warmly ſupported the reformation of the old French government, and took an active part in all proceedings of the National Aſſembly, in conjunction with many other eminent perſons, who like him, experienced a bad reward. When obliged, after the affair of the 18th Auguſt, to emigrate from France, he employed his time and abilities in a ſuperior way to moſt of his brethren. The native benignity of his temper, and love of his country, reſtrained him from joining in the meaſures uſed for reſtoring the old government; and occaſioned him to travel into other countries, as a mean of inſtructing himſelf, and benefiting mankind.

At an early period his Grace was fond of agricultural purſuits; and, when our countryman Mr Arthur Young viſited France, for the purpoſe of aſcertaining the ſtate of huſbandry in that country, he was received at Liancourt with open arms. Theſe two celebrated perſonages were equally fond of one another's company; the Duke being as eager to receive information concerning the rural economy of Great Britain, as to communicate particulars reſpecting that of his own country. In this publication he has ſhown himſelf an adept diſciple of the Britiſh touriſt, and diſplays equal diligence, and probably greater diſcernment, in the inquiries which he made in the courſe of his travels.

After reſiding five months at Philadelphia, for the purpoſe of procuring the neceſſary information to guide him during his intended journey, and where he cultivated the acquaintance of ſeveral

ſeveral reſpectable gentlemen, many of whom were uſeful to him during his progreſs in the United States, the Duke ſet out on the 5th May 1795, in company with a young Engliſhman named Guillemard, who had been led to viſit America to obtain accurate information of the country. They travelled on horſeback with one ſervant, which was certainly the beſt way of journeying, where roads are generally bad, and accommodation neither good nor to be found ſo eaſily as in many other countries. In this manner they proceeded up the Schuylkill, upon the banks of which a great deal of good land is to be found; and while the Duke attentively examined the farms, and enquired about the mode of their cultivation, his fellow-traveller appears to have been equally attentive to make mineralogical obſervations.

We make an extract from this part of the work, which will give a glimpſe of the preſent ſtate of huſbandry in the province of Pennſylvania.

'I was deſirous of being more accurately acquainted with the ſtate of agriculture and huſbandry about Reading, which in Philadelphia had been pointed out to me as the moſt perfect in all Pennſylvania, and I therefore wiſhed to converſe with one of the beſt informed farmers: Mr Evans had been named to me as ſuch. He ſuperintends and manages the farm of Angelico for Mr Nicholſon in Philadelphia, who bought it three years ago of Governor Mifflin. This farm, which lies three miles from Reading, on the way to Lancaſter, conſiſts of nine hundred acres, four hundred only of which have hitherto been cultivated, and fifty of theſe lie in paſture. From ſixty to ſeventy acres conſiſt of the fineſt meadows, ſome of which are ſown with clover. They are watered at pleaſure, partly by the Angelico, a ſmall brook from which the place takes its name, and partly by a very copious ſpring, which waters ſuch parts as are not within reach of the Angelico. The graſs is fine, ſtrong, and buſhy, and the only care taken of it conſiſts in a ſlight irrigation. The reſt of the land is under the plough, and produces wheat, rye, and buckwheats, oats and Indian corn, but without any mixed rotation of crops. The land is of the beſt quality, being a rich clay, from twenty-four to twenty-eight inches deep. Some places are ſtony. More or leſs manure is laid upon the ſoil every three years. From four to five cart-loads of dung, about fifteen hundred weight each, are generally allotted to an acre; but the dung is far from being in a ſtate to anſwer the intended purpoſe. The produce of the firſt year, after the ground has been cleared, is twenty-five buſhels of wheat, forty buſhels of rye, forty buſhels of barley, eight buſhels of oats, twenty-five buſhels of Indian corn, per acre. It would produce conſiderably more, if the wood were felled in a more careful manner, and the ground

ſomewhat

ſomewhat deeper tilled. It is the cuſtom, and conſequently the general opinion, that the ground muſt not be ploughed deeper than four or five inches. I have converſed with Mr Evans on this ſubject, who could not help allowing that the above opinion is erroneous. He was entirely of my way of thinking; but it is the cuſtom, and that has more weight than the cleareſt reaſoning. Newly cleared land ſometimes produces better crops, after the ſecond and the third year's tillage, than at the firſt; and this generally happens not when the ground has been cleared with ſufficient care. The uſual produce of this land is ten buſhels of wheat, twenty of rye, twenty of barley, forty of oats, and eighty of Indian corn. This diſtrict has not ſuffered from certain inſects, called *lice*, which occaſion ſometimes conſiderable miſchief to the crops; nor had the Heſſian fly much damaged the corn here. The ploughſhare is of iron; it has but one broad ſide bent toward the right. It is ill contrived, and turns up the ground very imperfectly. Two horſes are able to draw the plough in a pretty ſtrong ſoil. The work of the farm is performed by five men, ſix horſes, and twelve oxen. Mr Evan's wife and children manage the buſineſs of the houſe, of a pretty conſiderable dairy, and of the poultry-yard, which is much better ſtocked with fowls than American farms uſually are. The butter, which is not conſumed in the houſe, is ſent in winter to Philadelphia; but in ſummer they make good cheeſe, which is ſold for tenpence a pound. The corn is either ſold in Philadelphia, or Reading. Mr Evans fattens ſome oxen, but their number does not exceed eighteen, though he poſſeſſes ſeventy acres of meadow land; theſe oxen, together with his twelve cows and ſix horſes, conſume almoſt all his hay, for he ſells very little. He keeps it in barns, and ſometimes in ſtacks made after the Engliſh manner, but ſo very badly, that they generally tumble down. Every acre of meadow, if mowed twice a-year, yields from three to four tons of hay, and the price of this article was laſt year fourteen dollars a ton.'

The great and valuable ſettlement in Geniſſee ſtate of Maſſachuſets, under the management of Captain Williamſon, is amply deſcribed. The Captain appears poſſeſſed of eminent talents for rearing up an infant ſettlement, and rapidly bringing a waſte country into an improved condition. Great progreſs is already made in this extenſive undertaking, and we obſerve with pleaſure that the ſpeculation (for a ſpeculation it certainly was at firſt) will turn out advantageous to thoſe concerned.

After examining the ſettlements betwixt the old cultivated lands and the lakes, the Duke proceeded from Niagara to the province of Upper Canada; the preſent ſtate of which is fully deſcribed, and ſome ſpeculations hazarded upon its future condition

dition. General Simcoe, the governor, received his Grace like a friend, and communicated much information reſpecting the plans he had in view for its improvement, in which, it would appear, he was rather croſſed by the governor-general Lord Dorcheſter. The bounds of this newly cultivated province include all the country weſtward of lakes Erie and Ontario, not within the limits of the old province of Quebec, or Lower Canada; and the two provinces contain about 170,000 ſouls. From what is ſaid, it appears that theſe provinces hardly furniſh grain ſufficient for ſupplying the conſumption of the inhabitants, and that their eſtabliſhment is a very heavy burden upon Great Britain.

Being prohibited by the governor-general from entering Lower Canada, his Grace was obliged to croſs the lakes, and travelled by way of Oſwego and Albany to Boſton. During this tour, when paſſing Saratoga, he expatiates upon the ſcenes which took place there, in the moſt animated language. Maſſachuſſets he deſcribes as being as much cultivated as France, and the country, within twenty miles of Boſton, as a continued village.

Leaving Boſton, his Grace viſited the provine of *Maine*, and was kindly received by General Knox, who poſſeſſes an extenſive landed eſtate, known by the name of the Waldo Patent. An extract from the work will do juſtice to the General, who acted a conſpicuous part under General Waſhington, during the American war.

"In this territory, it ſeems to me that no perſon can fail to thrive, who poſſeſſes ſo eminently the qualities of intelligence, prudence, and activity, together with a ſufficient capital to lay out in improvements.

"Theſe neceſſary ſubdiviſions of his eſtate can only ſerve to make it all one ſcene of proſperous huſbandry, and abundant population, ſooner than the worthy owner could have otherwiſe expected. So much do I know of his character and talents, and ſo freely did he explain his plans to me, that I cannot but hope, as warmly as I ſincerely wiſh, the happieſt conſequences to his affairs, and to the country, to reſult from them both. At the ſame time, it ſeems to be indiſpenſably requiſite to their ſucceſs, that they be proſecuted with unwearied and unalterable perſeverance. At the diſtance of Philadelphia, and amidſt other buſineſs, it will be impoſſible to give the due attention to their advancement. A reſidence on the ſpot is abſolutely neceſſary. But, with this, attention and activity cannot fail to ſurmount every obſtacle; and the happieſt event muſt infallibly enſue. General Knox is fully ſenſible of all this, and has therefore retired from that public buſineſs, in which he was engaged

for five and twenty years of his life, with great honour to himſelf, and to which he generouſly ſacrificed a part of his fortune. He has even reſolved to decline attending the Winter meetings of the Legiſlature of the ſtate of Maſſachuſſetts. Thus, from a ſucceſsful career in political life, he turns himſelf to augment and improve a fair eſtate, in conſequence of which, he may probably leave immenſe wealth to his family. Can a man know a paſt life of more agreeable retroſpect, in connexion with future proſpects more fair and promiſing?"

After travelling through New Hampſhire, and paſſing two days with Mr Langdon, a gentleman of great influence in that ſtate, the Duke again viſited Boſton, and proceeded by the way of Rhode iſland and Connecticut to New York. The numerous towns on this coaſt, and the huſbandry of the adjacent country, are judiciouſly deſcribed; and, among other obſervations on the ſtate of Connecticut, we find the following:—

"Another law, long prior to the Revolution, obliges every ſeventy families in Connecticut, to maintain a common ſchool for eleven months in the year. Reading and writing are appointed to be there taught. If the number of families be under ſeventy, they are then obliged to maintain their ſchool only for ſix months in the year. Every town forming a regular incorporation, muſt keep a grammar ſchool, in which Engliſh, Latin, and Greek, are to be taught. The different ſocieties are to name, each, a deputation to viſit and regulate the ſchools. For every *thouſand* dollars of taxation to the ſtate, *two* dollars are to be paid for the ſupport of the ſchools. The teachers have ſalaries proportioned to the taxation of the diſtricts to which they belong. Towns or communities, entruſted with particular funds for the ſupport of the ſchools, can receive no intereſt from thoſe funds, while they delay to erect the ſchools for which it was deſtined; and loſe the principal, if they ſhall attempt to divert it to any different purpoſe. Towns or pariſhes, having no *foundation* for ſchools, muſt either ſupport their ſchools entirely out of the appointed tax, or muſt at leaſt contribute one half of the means for the maintenance of theſe ſchools; while the parents, whoſe children are educated in them, pay the reſt. In very populous towns, the ſupport of the ſchools continues to be left to the inhabitants.

"It is provided by law, that the ſelect men ſhall in every town take cognizance of the ſtate of the ſchools. Upon their reports, and in the proportions in which theſe declare the ſalaries to be reſpectively deſerved, the towns make payment of the money which has been levied for the teachers. Where there are no ſchools, or but very bad ones, the proportion of the tax is withheld,

held, in order that it may be beſtowed, where it has been better earned. There is, however, no inſtance of a town or pariſh remaining negligently without a ſchool. Many communities maintain their ſchools for a greater part of the year, than they are, by law, obliged to do. The ſelect men, and the deputations from the communities, manage the farms, and other revenues of the ſchools.

"The teachers are commonly young men from the colleges, ſtudents of law, or theology. Their ſalaries are, at the pleaſure of the different pariſhes, from two to three hundred dollars. Almoſt all thoſe who now act a diſtinguiſhed part in the political buſineſs of New England, began their career as teachers in theſe ſchools; a ſituation that is accounted exceedingly honourable. Sometimes, where the ſalary is ſmall, women are choſen to be the teachers. Even theſe muſt, in this caſe, be well qualified to teach reading, writing, and arithmetic.

"Every county muſt have a ſchool for Greek and Latin. A fine of three dollars is exacted from parents neglecting to ſend their children to ſchool. The ſelect men have authority to levy it.

"One natural conſequence, from the careful obſervance of this law, is, that hardly a perſon can be met with in Connecticut, any more than in Maſſachuſſetts, who is not qualified to read, write, and perform the common operations of arithmetic; and that the general manners are better, the laws more faithfully obſerved, and crimes more rare, here, than in other places."

Paſſing through New York and New Jerſey, the noble author terminated a journey of ſeven months continuance, "on which," he ſays, "I cannot reflect without pleaſure; and, in the courſe of which, I found few things, but ſuch as I have had occaſion to mark with approbation."

The journey through the ſouthern ſtates was delayed till the month of March: on the 24th of which month, the Duke took ſhipping at Philadelphia for Charleſtown in South Carolina; and during the paſſage, obtained much previous knowledge of the country from Mr Pringle, attorney-general of that ſtate, who was his fellow-paſſenger. After examining South Carolina and Georgia, he proceeded to the Spaniſh ſettlements of Eaſt and Weſt Florida, a deſcription of which concludes the performance.

The huſbandry of theſe ſtates, is of a quite different nature from that of the northern ſtates. Property is in much fewer hands; and farm-work is chiefly performed by negro ſlaves. Rice is the principal object of cultivation, though it appears to be not only hurtful to the health of the people, the ground

being always kept in a ſwampy condition, but alſo the leaſt productive article of agriculture in Carolina.

We cannot take leave of this work, without expreſſing the high opinion we have formed of the talents and abilities of the noble and worthy author. Born to figure in a different line than ſurveying the huſbandry of any country, it muſt excite ſurpriſe, that his mind could, at once, accommodate itſelf to undertakings of this nature; and ſtill more, that he was able to preſent to the Public, a detailed account of the political, commercial, and rural economy of America, which few can equal, and which none will excel.

The preface by the Engliſh tranſlator, though generally liberal, contains ſome things which we earneſtly wiſh had been left out. Few perſons will object to the performance, becauſe the Duke conſtantly diſplays an ardent affection for his native country; nor will many be diſpoſed to find fault, becauſe he refrained from imitating the conduct of CORIOLANUS, when he was forced to fly from the land which gave him birth. He has certainly acted a much more noble part, by employing the years of his baniſhment in gathering materials for the preſent work; which, we truſt, will hand his name down to poſterity with renown, while the actions of many other perſons in his ſituation, will be conſigned to oblivion, or recorded without applauſe. N.

PART

PART III.

Agricultural Intelligence.

The year 1799 will long be diſtinguiſhed in the annals of this country, as remarkably unfavourable to the operations of huſbandry; and it is with much regret that we open this department of our work at ſuch an eventful period. Circumſtanced as we are, it is our duty to ſtate facts, however diſtreſſing the narration may be; for a different conduct would not only be unproductive of the ſmalleſt advantage, but might lead the public into a liſtleſs and fatal ſecurity, and prevent the neceſſary meaſures from being timeouſly uſed for procuring additional ſupplies, and for ſupporting the induſtrious poor, who are unable to purchaſe proviſions at the preſent ſcale of prices.

Before we detail the different articles of intelligence communicated to us, it appears very neceſſary to give a ſhort view of rural economy during the laſt year. Imperfect as this haſty ſketch muſt be, conſidering the variety of ſoil, climate, and practices of Great Britain, we judge it may be of ſome utility. If it does not add to the ſtock of information already in the poſſeſſion of our readers, it muſt at leaſt be acceptable; as it brings into a ſmall compaſs the ſeveral circumſtances, which contributed to produce the preſent manifold diſtreſſes.

At the concluſion of the preceding year, a brighter proſpect was ſeldom preſented to the farmer. The fallows were completely wrought. The wheat fields, which were univerſally ſown in excellent condition, were covered by the fineſt and cloſeſt braird. The ploughing for Spring grain was far advanced: And, in a word, every operation of huſbandry had been executed in ſuch a manner, as afforded good cauſe to expect they would be crowned with a rich and abundant crop. The firſt reverſe of this pleaſant proſpect was experienced in the months of February and March, from a long and ſevere ſtorm of ſnow, which was ſucceeded by rainy weather, and occaſioned a large proportion of beans and oats to be put into the ground while it was in an unfavourable condition. Heavy rains about the firſt of May likewiſe retarded the ſowing of barley, and in a great meaſure ruined the furrow drills of beans upon the wet and heavy lands.

Yet all theſe circumſtances would not have occaſioned a bad crop, though a later harveſt than uſual would neceſſarily have been the conſequence. The dry weather, from the middle of June to the end of July, produced a moſt ſurpriſing

alteration upon the fields; and, if it had continued another month, a plentiful return might have almoſt been inſured to the farmer. We have ſeldom obſerved a better appearance of wheat upon the ground than what was then to be ſeen. The greater number of fields were bulky, the ear was generally of a full ſize, and all that was wanting was a ſufficient quantity of heat and ſun to bring the crop to maturity.

Theſe beautiful proſpects, however, were ſoon over-clouded, and the fields, inſtead of a healthy vigorous colour, aſſumed a complexion which ſeriouſly affected every diſcerning mind. About the beginning of Auguſt, heavy rains, accompanied with cold eaſterly winds, reduced the Summer fallows and turnip fields into a perfect mire, half rotted a great part of the hay, ſtopped the growth of the ſecond crop of clover, laid down all the ſtrong corn, and effectually prevented the wheat from filling; as that grain cannot arrive at perfection, if loaded with moiſture at that ſtage of its growth.

The month of September was, on the whole, rather worſe; indeed, the ſtrong corn lay ſoaking among water during the greateſt part of it. Much of the wheat, from the exceſs of moiſture, died at the root before the ear ripened; and the ſtraw got a grey colour, from the perſpiration of the ſtalk being prematurely ſtopped; and, when cut, had an appearance ſomething like as if it had been kiln-dried. The people in general were by this time convinced that the grain would neceſſarily be of inferior quality; but few believed that it would be ſo defective in every reſpect as facts now unequivocally ſubſtantiate.

Oats, which are a hardy grain, ſuffered leſs under theſe unfavourable circumſtances, and promiſed at one time to be generally a medium crop. This has turned out to be the caſe upon the dry ſharp ſoils; but thoſe of a different deſcription did not eſcape ſo well; and, upon the high grounds, they were nearly deſtroyed by two ſevere nights of froſt on the 16th and 17th October. Some beans are ſaid to have been alſo injured at that time; but we believe that the loſs of this grain will be very trifling, as they are uſually ſown upon deep rich lands.

We deem it unneceſſary to enter further upon the ſubject in this leading article; but ſhall proceed to detail the different communications tranſmitted to us. We only add, that we ſhall be much obliged to any gentleman, who has kept a regiſter of the weather during the paſt year, who will be kind enough to favour us with a copy; and, if accompanied with monthly remarks on the ſtate of rural economy, it muſt prove highly uſeful. Such a regiſter will not only inform the preſent generation, but muſt alſo prove very intereſting to poſterity. We need hardly ſay, that if ſimilar information could be procured

procured concerning the cauſes which occaſioned the ſcanty crops at the end of the 17th century, traditionally called the *barren years*, it would be acknowledged as a particular obligation.

Before we conclude this article, we muſt remark, that it gives us ſenſible pleaſure to notice the great degree of attention ſhown to the diſtreſſes of the poor, not only in the capital and other large towns, but alſo in many country pariſhes. While we heartily commend theſe philanthropical exertions, and wiſh them extended over the whole iſland, it cannot be improper to ſuggeſt, that the moſt ſucceſsful method of aſſiſting the poor, is by ſelling them meal at reduced prices, the reduction to be in proportion to the ſize of their families, and their ability to work. If donations of coals are added, the poor might paſs through this calamitous ſeaſon without ſuffering more than they undergo every Winter, provided meal, which is the ſolid national food of Scotland, is afforded them at ordinary prices.

Extracts from Private Correspondence.

SCOTLAND.

Edinburgh, 12th November 1799.—Old Hallow Fair was numerouſly attended this day, the greateſt part of farmers in the adjoining counties, from the lateneſs of the harveſt, being ſtill unprovided with their winter ſtock. Lean cattle were inferior in numbers to the demand, and of courſe ſold at higher prices than they have brought for ſome time paſt. Few fat beaſts were preſented; but a new ſet of purchaſers appeared, who ſeemed, from the choices made, to be little verſant in the buſineſs. Theſe were people of the place, who wanted to lay in their *marts*; a practice which, though anciently very common, has for ſeveral years been in deſuetude. We are very apprehenſive, from the quality of the beaſts generally purchaſed, moſt of them being only fit for the ſtraw-yard, as well as the ignorance which muſt neceſſarily prevail reſpecting the ſalting of beef, in a ſufficient way for preſervation during the Winter months, that this new claſs of cuſtomers at Hallow Fair will not make their appearance next ſeaſon.

The ſhew of horſes was below mediocrity; and, as uſual, the inferior ones were quite a drug. Good horſes ſtill bring a full price; but, from the wetneſs of the ſeaſon, and bad food lately received, there is cauſe to believe that thoſe of the firſt deſcription will not be ſo plenty for ſeveral years.

Sheep were rather lower, though the fall upon them is leſs than upon cattle. Good Highland ſheep, fit for laying upon turnips, may be conſidered from 1s. to 1s. 6d. lower than laſt year. The *dead* market is overſtocked with inferior kinds, and will be ſo for a little time.

Inverneſs, Dec. 10.—The harveſt in the northern counties has been backward and unfavourable: but, upon the whole, I believe we have been fully as well off as the ſouth of Scotland, and the greateſt part of England. The wheat crop with us may average ſeven bolls per acre, and weighs from 52 to 58 lb. Linlithgow firlot. Barley will not be much ſhort of an average crop in point of quantity, but the quality is far from being ſo good as uſual; and as for oats, they are defective in every reſpect, and will hardly be equal, in my opinion, to the conſumption of the county. Wheat ſells here juſt now at 38s. and 40s. per boll. Barley 28s. and 30s.; in other places, 21s. and 25s. I do not imagine any oats or peas are yet ſold in the neighbourhood at poſitive prices: but oat meal has not exceeded 24s. per boll of 9 ſtone, Amſterdam weight. Lean cattle have been lower ſince laſt September than at any period for ten years back. They rather ſeem now on the riſe, but none can be drove ſooner than the Spring months. Beef and mutton, of the beſt quality, ſold lately at 2½d. per lb. in quarters; principal pieces at 3d., but is now advanced 1d. the lb. weight, and will probably ſoon experience a further riſe. Hay ſells at 1s. per ſtone, and, if the Winter continues open, I hardly think it will exceed that price.

Edinburgh, Dec. 10.—The Magiſtrates of this city have given notice, that, after various conferences with the incorporation of bakers, they have reſolved, with the approbation of the Lord Preſident, and other Lords of Seſſion, to diſpenſe with ſetting any aſſize from and after this date, till further intimation is given.

This reſolution of the Magiſtrates deſerves the thanks of every well-wiſher of the community, as being the only method, under the preſent circumſtances, to procure the inhabitants a regular ſupply of good wholeſome bread. Every perſon of common diſcernment will acknowledge, that a pound of bread, baked from the produce of this year's crop, is of much leſs value than the ſame quantity manufactured from that of the preceding year. The ſuſpenſion of the aſſize will therefore place matters on their natural footing; for, the comparative value of the ſtaff of life, like every other commodity, ought to be aſcertained in direct proportion to its quality.

We alſo obſerve, that ſtandard wheaten bread, ſuch as is ſold in London, is advertiſed by our bakers, the preſent price of which is 1s. 2d. per quartern loaf.

Edinburgh, Dec. 14.—The firſt PUBLIC KITCHEN, for the Poor of the city and ſuburbs, was opened this day; and we are happy to hear that a ſecond kitchen is in preparation. A conſiderable ſum of money has been raiſed by ſubſcription for promoting this benevolent

nevolent object; and it gives us pleasure to add, that the Concerts given in the Assembly Rooms, George-street, for the same purpose, were remarkably well attended. The Sieur Herman Boaz has likewise given an exhibition of his wonderful performance, for the benefit of the fund, at which twenty guineas were collected.

By letters from Glasgow and Perth, we are informed that subscriptions have been opened in these places for the importation of corn from abroad.

Dunse, Dec. 21.—A considerable quantity of corn in the district of Lammermuir still remains in the fields, and, it is to be feared, will be of very little value. Indeed, the crop in general in this county does not promise to have great effect in keeping down the markets.

Glasgow, Dec. 21.—American wheat is selling here at 57s. to 58s. per boll. Dantzick, 56s. to 60s. New north country wheat 42s. Barley 30s. to 32s., but poor in quality; and oats of this county growth from 22s. to 26s.—all per Linlithgow measure. Old beans 36s. to 38s. New ones 28s. to 30s. per Stirlingshire measure. Oat meal 30s. to 32s. per boll, of 8 stone Dutch or Amsterdam weight. The quartern loaf of bread is 1s. 4½d.

The Clyde being already shut, and every appearance that the canal will soon be frozen up, gives us a small prospect of a decline of prices for some time hence.

Haddington, Dec. 27.—The weather, during the past quarter, has been unfriendly to every object of rural work; and the operations of the farmer have not, in the memory of man, been carried on at greater trouble and expence. It was near the beginning of October before a general harvest commenced, and many farmers had last year finished by the time they this season put a sickle in the crop.

Notwithstanding these disastrous circumstances, there is cause to believe that a great part of the district has escaped as easily from the consequences, as any other in the kingdom. Wheat, however, is worse, both in quantity and quality, than was ever known, being small in the grain, thick in the husk, and much of it unsound. Perhaps it is not equal, in point of consumption, to the half of crop 1798, and 15 per cent. at least inferior to the crop 1782, which encountered a season something similar to the last.

With respect to barley and oats, they have often been known, upon good lands, in former years, as defective as the present crop; but it is upon the high exposed situations where these grains (chiefly the last) are most below an average. Wherever they were not fully ripened when the frost set in, they are worst, and the extent of the deficiency is in direct proportion to the stage of their growth when the frost took place. The wet weather in April, which happened immediately after the generality of oats in the low district were sown, prevented those in the high districts from being

put

put into the ground till near the end of the month; and this circumſtance, together with the unfavourable condition of the ground when they were ſown, contributed to throw them very late, and in the way of meeting with the injury which afterwards befel them.

Peas, taken by themſelves, may be viewed as no crop. In many places they are not worth the expence of thraſhing, and few farmers will have a return exceeding the quantity ſown. Tares are equally defective; but beans, eſpecially where they were free of peas, and not damaged by the wetneſs in feed time, may be conſidered as approaching to ſomething like an average crop.

Oats, from what is already ſaid, may be conſidered as mealing very unequally. The very beſt do not exceed meal for corn, and very few come that length. The generality of low country grain, properly got, may be ſtated as yielding 14 pecks, or 7 ſtone Amſterdam weight, per Linlithgow boll: Farther ſouth they yield much leſs; ſome not more than 6 to 8 pecks of meal to the boll of oats.

The weight of grain upon a farm in the lower diſtrict, taken this week, is,

Good white wheat -	59¼ lbs. Avoirdupois.
Ditto red - -	58
Barley - -	70
Oats - -	61
Beans - -	57¾

Laſt year, upon the ſame farm, the weight was,

White wheat -	63½ lb.
Red ditto - -	66
Barley - - -	79
Oats - - -	63

Prices have been and ſtill continue vaſtly diverſified. Indeed, it is a difficult affair to ſay, what is the comparative value of a good deal of grain; and this diverſity will prevail through the year, though it muſt leſſen after the corn is ſufficiently dried. New wheat ſells from 30s. to 50s. per boll; very little old now to be got. Barley 25s. to 34s. Oats 18s. and 31s. Of peas and beans little can be ſaid, as very few of theſe grains have as yet been offered for ſale. A correct ſtate of yeſterday's market, given at the concluſion of this article, will place the ſcale of prices in a clear light.

Turnips, upon the whole, are indifferent. Indeed, half a crop is this year accounted a good one. The greateſt part are not equal to a third of an ordinary crop; and upon lands not in high condition, they are worth very little. Potatoes are ſtill worſe, yielding not only little produce, but are inferior in quality. The beſt ſoils have ſcarcely given a third of the uſual quantity, and, upon

upon wet lands, the crop was, in many places, not worth the taking up. They are already selling at 14s. per boll of 16 pecks, 26 lb. Amsterdam weight, each; and apprehensions are entertained, that there will be a scarcity of healthy seed for the next year's planting.

Hay is scarce, and already selling from 16d. to 20d. per stone. A very great part of the crop was consumed, during the Autumn, by farm-horses, as green food was in many places not to be had, and the peas and beans were so late. Straw is likewise advanced to double price; but little of this article, from the nature of the leases, can in ordinary cases be sold.

Lean cattle, which were low at Falkirk, rose much at the after markets; and a smaller quantity than usual is wintered in this county. The crop being, on the whole, of less bulk than common, and the fodder bad, are the causes why a smaller number are taken into the straw yard.

The market has been fully supplied with fat stock for some time past, but a good part has rather been of an inferior quality. The failure of turnips, and the stoppage of the distilleries, necessarily brought a great number to sale, which would otherwise have been put to the stake; but this extra quantity being now in a great measure removed, there is a probability that a scarcity will soon be felt.

A very small proportion of wheat has been got sown, perhaps not the twentieth part of what was intended; and if the Spring months are not very dry, few farmers upon the clay lands can sow a peck with advantage. Many of the Summer fallows remain undunged, and ploughing was never farther behind. The working horses, from wet weather, heavy work in bringing home the crop, and badness of food, are generally in a worse condition than usual, and, from the expence of *keep*, it is highly probable, that they will not much improve during the winter months.

On Wednesday se'ennight, the weather materially changed, and we have since had some heavy falls of snow, attended with frost, which has in a manner stopped all operations in the field, unless it be the driving of dung. A few people have ploughed, but they have done more hurt than good, by touching the land in such improper condition.

Haddington Corn-Market, Dec. 27.—We had a pretty full market of wheat this day, for the season, there being 350 bolls exposed, which, since the new crop appeared, have been fully adequate to supply the demand. Last year, during the winter, we seldom had less than 500 bolls, one day above 700 bolls; but such a quantity would, at this time, scarcely find purchasers. Whether this circumstance proceeds from a reduced consumption, or from the west country dealers receiving supplies from other quarters, we cannot ascertain, though probably both contribute to lessen the usual demand.

Of

Of the above quantity, 260 bolls, by the market liſt, were only ſold; but it is ſuſpected that ſome may be ſold, and not entered in the clerk's book; and that a part of what is originally *ſet up*, is ſold privately after the concluſion of the market. The prices were:

2 bolls old	62s.	6 bolls	38s.
3 bolls ditto	60s.	8 bolls	37s.
6 bolls new	48s.	14 bolls	36s.
10 bolls	47s. 6d.	6 bolls	35s.
9 bolls	45s.	9 bolls	34s.
5 bolls	44s.	5 bolls	33s.
9 bolls	42s. 6d.	9 bolls	32s. 6d.
46 bolls	42s.	10 bolls	32s.
16 bolls	41s.	11 bolls	31s.
33 bolls	40s.	9 bolls	30s. 6d.
8 bolls	39s.	26 bolls	30s.

The average price of the whole was 1l. 18s. 6d., being 1s. $3\frac{4}{12}$d. lower than laſt market day.

The utility of a market-liſt is univerſally acknowledged, and Haddington is the only place in Scotland, where the *real* price of wheat can be fairly calculated. It would be a deſireable meaſure, were the Magiſtrates, or the Juſtices, to extend the appointment to the other markets, which might be attained by an additional clerk, or by having the markets at ſeparate hours.

Barley may be ſaid to have remained ſtationary for ſome weeks; prices were from 27s. to 33s. 6d. Oats ſold well, eſpecially thoſe of good quality, which indeed are not numerous. Beſt price 31s. 6d.; but a great many of bad quality have lately appeared in the market, which of courſe have been ſold at various prices. Old peas were as high as 36s., and new peas and beans were ſold from 20s. to 30s.; but a full ſupply of this article has not yet appeared.

Mid-Lothian Quarterly Report.

From the long continued courſe of inclement weather, previous to the laſt quarter, it was anxiouſly hoped, that it would have proved more favourable to agricultural operations; and thus, in ſome degree, have counteracted the preceding ungenial ſeaſon. In this, however, "the hope of the huſbandman has failed" as completely as before. The month of October was occupied by the farmer almoſt wholly in cutting down, and gathering in, under every unfavourable circumſtance, the ſcanty product of a greatly damaged crop; while the *wheat-ſeed*, and the *early fallow*, were unavoidably poſtponed to an opportunity better adapted to theſe works. November followed with the ſame forbidding aſpect; and now December, clothed with ſnow, puts a finiſhing hand to the operations of the year, leaving, at the leaſt, two-thirds of the *wheat-land* unaccompliſhed, while a portion (not inconſiderable) of the crop in the muirlands is ſtill expoſed to the winter ſtorm.

The

The prices of grain, hay, and ſtraw, have of courſe been ſtrongly affected with theſe untoward circumſtances, and have reached to a height, particularly the laſt, unparalleled in modern times; and, as we have every reaſon to believe that this has ariſen ſolely from the calamity of the caſe, it muſt render the moſt rigid economy, in the uſe of the neceſſaries of life, together with the utmoſt poſſible exertion to procure a ſupply from abroad, more urgently neceſſary now, than at any period for a hundred years gone.

The following have been the average prices of good grain, &c. for the laſt 3 months:

		October.		*November.*		*December.*	
	Buſh. 1000 parts.	s.	d.	s.	d.	s.	d.
Wheat per boll	4 114 *	38	0	36	6	42	0
Beans ditto	do. do.	25	6	32	6	32	8
Barley ditto	5 962	26	6	29	6	32	0
Oats ditto	do. do.	25	0	26	0	28	0
Oat meal per peck of 8 lb. Dutch		1	11	2	0½	2	1½
Potatoes per peck, about ¼ cwt.		0	10	1	0	1	0
Beſt beef per lb. of 17½ oz.		0	5½	0	5	0	5½
Hay per ſtone of 22 lb. avoird.		1	1	1	4	1	9
Oat ſtraw per kemple of about 15 ſtone hay weight		12	0	14	0	15	6
Wheat ſtraw ditto for litter		8	0	10	6	10	0

From a Mid-Lothian Farmer.

December 28.—I conſider that a comparative view of crop 1799, with that of the preceding year, may be arranged as follows:

Wheat, as one-third deficient.
Barley, ditto.
Oats, three-eighths ditto.
Bran and peas, one-half ditto.
Potatoes, two-thirds ditto.

Wheat will weigh, upon an average, per firlot, 56 lb. Barly 66 lb. Oats 57 lb. There is not one-third of the uſual quantity of wheat ſown, and ploughing is much behind.

The produce of what we call good oats for the ſeaſon, will be from 11 to 13 pecks of meal. Oat meal ſells at 2s. 2d. Peas ditto 1s. 7d. Bear ditto 1s. 6d.—all per peck of 8 lb. Dutch weight.

We have juſt received from London, a copy of Sir John Sinclair's Propoſals for eſtabliſhing a Joint-ſtock Company of 1600 ſhares of 50l. each, for the purpoſe of carrying on Experimental Farming,

* This is the average of OLD and NEW together; the beſt old being about 20s. higher than average.

Farming, and planting waſte lands. Want of room prevents us from inſerting the propoſals in this number, but they ſhall be given in our next, together with ſome obſervations from a correſpondent. Such a public-ſpirited eſtabliſhment deſerves every encouragement; and we truſt it will meet with the ſame liberal ſupport as Sir John's patriotic plans have hitherto experienced.

ENGLAND.

Doncaſter, October 23.—Our harveſt is in a ſad ſtate, moſt of the wheat and barley have been badly carried in; and as for the oats and beans, they are too green to admit of an idea of ripening, though they are cutting them in order to get them off the ground. The Summer fallows are in a moſt wretched condition; and much of the flat land towards Hull is under water. Wheat is conſidered as the worſt of the grains; and the general opinion is, that 3 buſhels will not produce more flour than 2 did laſt year.

Stafford, Nov. 4.—The oldeſt perſon in this county does not remember ſuch a bad harveſt; many of my neighbours have not yet finiſhed, and what they have got in is moſtly ſpoilt. Upon the eſtate, where my farm is ſituated, we uſed to be all over by the end of Auguſt, and, this year, it was the middle of October before we got done. I had many acres of barley on the ground for two months; and, as it rained the moſt part of the time, you may eaſily judge what condition it is in. Grain of every kind, that is good, is now ſold at moſt extravagant prices. Laſt market day, wheat ſold at 15s. per buſhel, barley 7s. 6d., oats 6s., beans 12s. Our meaſure is 38 quarts to the buſhel.

The hay harveſt was equally bad. I had one meadow of fine hay carried off by the floods. Turnips have failed, which will be a bad affair for ſtock.

Lincoln, Nov. 12.—The harveſt in this county is nearly completed, and the prices of grain are rather lower than when I wrote you laſt. Oats are from 15s. to 34s.; barley 30s. to 44s.; wheat 50s. to 80s.; beans 36s. to 48s. per quarter, of 8 ſtrikes or Winchester buſhels. Our crops of wheat are much lighter than uſual, and ſo are oats; but barley is tolerable, and may produce 3 quarters per acre on an average. Beans about 2 quarters. Upon the whole, I think our crop is one-third leſs than uſual.

Turnips are but a ſmall crop, though full as good as previous appearances led us to expect. Fat cattle reduced in price, and beef ſells from 3s. 6d. to 5s. per ſtone, of 14lb. avoirdupois, according to quality.

You may be aſſured every aſſiſtance in my power will be given to the Farmer's Magazine, which promiſes to be an uſeful work. The chief improvement practiſed in this country is, embanking and draining low lands, and marling or claying wild ſands, or loamy

loamy groſs lands. Particulars concerning theſe improvements, I ſhall ſend you afterwards.

Pontefract, Nov. 18.—Fat cattle have been plentiful for ſome time paſt, and the markets dull; but within theſe few days, a conſiderable advance has taken place. They are ſelling now from 5s. 6d. to 8s. per ſtone, ſinking the offal. Sheep not rotten, but a great deal of them very poor. Our corn crops very indifferent. Wheat preſents a bad ſample, being moſtly ſprung. Barley and oats no better, and all very deficient in quantity. Prices faſt riſing. On Saturday laſt, old wheat ſold here at 15s. per buſhel, new 12s. 3d. Old oats 6s. 3d., new 4s. 3d. Barley 5s. 6d. Beans 10s. A proſpect of bacon being very high. At Malton, it ſells, green, at 6d. per lib.

Stafford, Nov. 30.—The weather, for this fortnight paſt, has been more favourable, and I have got my wheat ſeed completed; though many farmers round me, from the extreme wetneſs of their lands, have not ſown a buſhel. We have now begun to feed our cattle on turnips, to ſave the hay; and they are turning out better than I expected; but, after all, they are not above half the ſize of laſt year's growth. Markets for grain ſtill keep up. Seventeen ſhillings per buſhel was aſked at our laſt market for new wheat, but none would give it. I hope it will ſoon be lower; though, I aſſure you, this has been a moſt trying and expenſive ſeaſon to the farmer. Cheeſe has alſo riſen to an extravagant price, and the Government factors are buſily purchaſing. Beef, mutton, and pork, ſell from 4d. to 4½d. per lb.

Lynn, December 3.—Harveſt here has been ill got, ſome barley ſtill in the field; but, generally ſpeaking, the crop is ſuppoſed not to be ſo unproductive as was at firſt expected. Never was ſo great a diſproportion known in prices as this year. Wheat ſold yeſterday from 64s. to 100s. per quarter. Barley 28s. to 51s. Oats 18s. to 38s. No beans. The turnip crop has improved greatly of late, and there is now favourable weather for ſowing wheat.

Wakefield, December 13.—Our markets for corn are very high, though they have rather declined for theſe two weeks back; but unleſs we have a large importation from abroad, it is the general opinion they muſt ſoon advance. The beſt informed merchants differ, whether any conſiderable quantity of foreign grain can be procured. One principal houſe in London writes in the affirmative; while another, equally reſpectable, gives a direct contrary anſwer. Barley is ſo much injured by the rains, that it will not malt, which has cauſed old malt to ſell at 9s. per buſhel. The farmers are ſtill ſowing a little wheat, and a tolerable proportion has been got into the ground; but it has been harrowed ſo extremely wet, that I ſuſpect a large proportion will periſh. Prices at our market this day—Wheat 70s. to 96s. Barley 35s. to 48s. Oats 28s. to 50s. Old beans 84s., all per quarter of 8 buſhels.

Northumberland

Northumberland Quarterly Report.

The failure of the wheat crop is general in this country; and moſt of the ſamples that have been preſented at market, are not ſo good as the hinder end or light grain of laſt year. The produce per acre does not exceed one half of what it ought to be, and, in many places, it is unſound or ſprouted.

Barley, upon dry ſoils, is a tolerable crop; but upon moiſt ones, it periſhed by too much wet. The maltſters complain that a great deal of it will not malt.

Oats, upon the vales or low grounds, are a medium crop. Upon the hills or muirs, they are very bad; never ripened, and are nothing but huſks. Many of them were ſtill out in the laſt week of November and firſt of December. Some ſtill remain in the fields at this date.

Peas, abundance of ſtraw, but little or no grain.

Beans were very late, but would have been a medium crop, had not the uncommon hard froſt, on the 16th and 17th October, injured them. A field of beans, near Belford, is ſtill to cut; but the generality were got in during the laſt week of November.

Turnips, upon good dry ſoils, are a fair crop. Upon moiſt ſoils, very bad; in many places, abſolutely worth nothing; the conſequence of which is, that decent ones are letting from 7l. to 9l. per acre.

Our cabbages are ſcarce any thing but leaves: few of them have a *core* much larger than a man's fiſt, the cold and wet entirely prevented them from cabbaging.

Of potatoes, that ſtaff of life to the poor, the account I have to give is ſtill more melancholy. They have not only failed in produce, but are bad in quality, and are now ſelling at three times their uſual price. Many were damaged by the froſt.

The proſpect for next year, in my opinion, is ſerious and alarming. In many places, ſcarce an acre of wheat is ſown upon the Summer-fallows, nor likely now to be ſown, unleſs a favourable ſeaſon happens in the month of February.

Prices.	s.		s.	
Old wheat	16	to	18	per buſhel Wincheſter.
New ditto	8	to	11	
Barley, new	5	to	6	
Oats, ditto	4	to	5	
Old peas	8	to	10	very little of either to be had.
Ditto beans	7	to	9	

The price of live ſtock depreſſed conſiderably in October laſt, but fat is now getting up. Beef and mutton 5½d. to 6d. per lb. avoirdupois, and expected to be ſcarce in the Spring.

Lynn, Dec. 19.—The weather is now ſet in ſeverely, but of late it has been good, for the ſeaſon of the year; and the ſowing of

of wheat is finiſhed, a full quantity of which grain is got in. Laſt year's crop of wheat is not ſuppoſed to exceed two thirds of an ordinary one. Barley is by no means deficient in quantity, but ſo extremely injured by the rains, that ſcarcely one third of it will grow when put into the ſteep-ſtone.

Oats are not bad, but few are ſown in this county, and they are ill got this ſeaſon. Wheat ſells at preſent from 46s. to 90s. per quarter. Black or ſtained barley 18s. to 37s. Bright ditto 40s. to 60s. Average weight of wheat 55 lb. per buſhel. Laſt year it was 59½ lb. The price of a quartern loaf of bread here is 13½d.

Lean ſheep have been much reduced in price; but mutton ſells at 6d. per lb. All ſorts of ſtock are, however, rapidly riſing, and are expected much higher in the ſpring, as it is probable there will be a ſhort ſupply. Potatoes are a bad crop; but there are not many planted in this county. Hay ſells at 90s. per ton.

Rape-ſeed is the ſmalleſt crop ever remembered; and we conceive that 1000 quarters would clear this county. The early got is of fair quality; but the late crop is much injured.

From the great improvements in this county, by drilling, ſetting, and hoeing of corn, our crops are now ſo free of weeds, that they are leſs ſubject to hurt from bad weather than formerly; and when the open airy ſituation is taken into account, it is expected that our produce will be equal in quality to any other diſtrict in the kingdom.

Stafford, Dec. 21. The difference betwixt this crop and the preceding one, will be fully one third as to the quantity, independent of the great inferiority of the ſeveral grains. I think my wheat crop may average 20 buſhels per acre; but the meaſure we give in this county is 38 quarts; a practice ſanctioned by cuſtom, which ſuperſedes all law. Some of my barley, which was got in before the wet ſeaſon, may yield 40 buſhels. With regard to oats, we have not thraſhed any. Prices are rather on the decline: Wheat ſold laſt market from 14s. to 15s. per buſhel. Barley 7s. 6d. to 8s. Oats 5s. 6d. to 6s. Beans 13s. to 14s. As for peas, few will have a ſufficient quantity for ſeed.

The weather has been favourable of late for ſowing of wheat, and the major part of farmers are finiſhed. We have all been behind hand this year in our labouring, at leaſt two months farther back than laſt year. A part of the ground for ſpring corn is ploughed, and ſome of the turnip fallows; but a change of weather has effectually ſtopped any more from being done for ſome time. I am fearful for the turnips; for, if they are injured by the froſt, I know not what we will do with our cattle. Hay is ſelling at 9l. per ton. Butcher markets are raiſed a halfpenny per pound; and there being few fat beaſts in the county, a farther advance is expected. Cheeſe is now 3 guineas per cwt. Butter 1s. 3d. per lb. Potatoes 2s. 4d. to 2s. 6d. per buſhel, which weighs about 74 lb.

Yorkshire Agricultural Quarterly Report.

It is painful to report the harveſt as by no means likely to be over before the commencement of the new year; a circumſtance almoſt unparalleled even in the coldeſt parts of the iſland. A conſiderable quantity of oats and beans have been but very lately, and very ill carried; and a great part of all ſorts of grain, that have been ſo ſtacked, is in danger of being heated and ſpoiled. The thraſhing has now generally commenced, with very unfavourable appearances; the wheat not yielding half the uſual produce in many inſtances, and that of an inferior quality. The barley, though of greater produce, is much complained of by the maltſters; and they have found ſome, on trial, utterly incapable of being malted. The oats appear to have by much the greateſt deficiency. Of beans and peas, little have been thraſhed; yet a few ſamples appear in the market better than might have been expected. This article is, in ſome inſtances, tolerably productive, though by no means a good crop.

Wheat ſowing, and fallows.—Theſe are in an univerſally backward ſtate on all ſoils. Some few pieces of clover, hay, &c. begin to look green, though the blade has ſprung very ſlowly. Many of the fallows on clay ſoils are in a moſt foul condition for ſowing; the bean and pea ſtubbles on thoſe ſoils are of courſe in a ſimilar ſituation. Many were ſtill ſowing wheat till the fall of the ſnow, and ſome with little proſpect of ſucceſs. Some of the wheat ſtubbles have received the Winter ploughing, preparative for the turnip fallow; the ſhortneſs of the days renders diſpatch almoſt impoſſible; but other grounds are laid up for the Winter in ridges, (ſkerbalking), which may prove a good method, eſpecially in a ſeaſon like the preſent. This operation requires leſs time; the ſoil is completely open, and expoſed to the influence of froſt, &c.; and will be dry and fit for croſſing in the ſpring, earlier than after a full ploughing.

Turnips and fodder.—Of turnips, there are ſome good crops; but they are obſerved to be ſwiftly conſumed by the ſheep on the ground: the deficiency of after-graſs renders the recourſe to them rather too early for the ſmall ſtock of hay, &c. The latter crop of clover was of little value. If the Winter ſhould be inclement, the the ſuſtenance of cattle will be a ſubject of anxiety.

Potatoes.—It is feared there will be conſiderable deductions from the ſcanty produce of this valuable root, cauſed by the many unſound ones among them, and their extreme moiſture when ſtored.

Hops, though not half a crop, will probably be found equal to the proportion of barley when malted.

Apples are plentiful and cheap, from the dearneſs of flour.

Prices

Prices of grain are declining, and perhaps may continue ſo for a few weeks. Beſt new wheat 12s. Barley and oats 5s. Beans 7s. per buſhel Winchester.

Cattle. Fat cattle ſell well; but many half fed ones are brought to market and ſlaughtered. Lean cattle are low. The ſame may be obſerved of ſheep.

Horſes. Theſe animals are ſcarcely convertible to money, at any rate, except thoſe of ſuperior kind, which command good prices.

December 19.

London, December 23.——Markets for grain have taken another turn, and, owing to the apprehenſions entertained that the ſeverity of the weather will prevent us from receiving foreign ſupplies, and that the navigation of the river Thames will be ſtopped, our demand for wheat and oats has been greatly increaſed. At the Friday's market, the former advanced full 8s. per quarter; and this day very few ſamples were preſented. Good oats are worth 50s. per quarter; but we have a great many very ordinary ones, which, unleſs upon a ſcarce day, can hardly be ſold. Beans and peas maintain the high price lately obtained, though our ſupply is large: and as fine barley comes ſlowly in, and is much demanded, there is not any fall upon that article.

Seeds, from the bad weather when they were ſaved, are vaſtly diverſified in quality and price. Red clover from 46s. to 130s. per cwt. White 30s. to 120s. Trefoil 16s. to 72s. Rye-graſs from 30s. to 40s. per quarter. Turnip-ſeed 30s. to 31s. per buſhel. And rape-ſeed from 52l. to 54l. per laſt.

The total return of wheat ſold in Mark-lane, from the 9th to the 14th December, is, 7,164 quarters, and the average price thereof 93s. 11d. The returns are given for the week preceding the time they are made up, though many of the newſpapers, particularly the Scots and provincial ones, preſent them in ſuch a way, as may lead the reader to think, they are the average of the laſt market day.

Average price of corn per quarter in England and Wales, for the week ending December 7th.

Wheat	94s. 2d.	Beans	64s. 3d.
Rye	56 7	Peas	57 4
Barley	45 5	Oat-meal	58 8
Oats	38 8		

Beaſts this day in Smithfield 1800. Sheep 5500. Several oxen ſold at 100l. each.

Prices per ſtone of 8 lb. to ſink the offal.

	s.	d.		s.	d.		s.		s.	d.
Beef	3	0	to	4	8	Veal	4	to	5	6
Mutton	3	8	to	4	8	Pork	4	to	4	8

Average price of tallow, 4s. 1¾d. per load of 8 lb.

The prize-ox purchaſed on Monday laſt, at the great price of 100 guineas, was exhibited to public inſpection in Fleet-market. He was fed in Buckinghamſhire, and weighs nearly 300 ſtones, is 8 feet 11 inches long, 6 feet 7 inches high, and 10 feet 4 inches round the girth. At the Smithfield ſhew of cattle, he gained the firſt prize given by the Duke of Bedford and others.

Smithfield has been remarkably well ſupplied this laſt week with Chriſtmas beef, ſome of which ſold ſo high as 7s. 6d. per ſtone of 8 lb. One bullock was ſo fat, that he fell down on Blackfriars-bridge, where he was killed. Others were killed in the ſtreets, being unable to walk to the place of their deſtination.

The ſhew of bullocks and ſheep, was attended by the Duke of Bedford, Lord Somerville, and other amateurs. The Prize Society afterwards dined together: His Grace in the Chair.

Extract of a Private Letter from a Man of Buſineſs in London, dated December 23.

I have had an opportunity, this day, of meeting with ſeveral farmers, from the different counties round London, who attend our market, and have received full information concerning the ſtate of their crops, and the forwardneſs of their huſbandry, which I here with communicate.

The crop of corn, in general, in the five counties of Middleſex, Eſſex, Hertford, Surry, and Kent, may be reckoned a fair average of ordinary years, as to quantity; but the quality of barley and oats, from being late, is much inferior to what is uſually produced. Wheat has been well got, and a great part is as fine as the growth of any year.

In *Middleſex*,—Wheat was well got, and of fine quality. Of barley, only a ſmall proportion is fit for malting.

Eſſex,—Part of wheat in the low-country late, and not ſo well harveſted. Barley as before.

Hertford,—Wheats all well got. Barley generally damaged.

Surry,—Upon the high lands, all the crops well got; but in the low part of the country very badly. In ſome caſes, pigs were turned out to eat the barley in the fields.

Kent,—Wheat in good order and condition. Barley but middling.

The oat crop in theſe counties was late, and indifferently harveſted; but the quantity of that grain ſown is but trifling. Beans, a good crop; but, from the wetneſs of the ſeaſon, they are not fit for uſe till kiln dried.

The general weight of wheat of this crop is about 56 lbs. per buſhel; ordinary 54 lbs.; ſome fine ſamples are 60 or 62 lbs.—The produce of fine pickled ſamples, is nearly equal to laſt year's growth;

growth; of middling and ordinary, the quantity of fine flour is much ſhort; ſay from one eighth to one tenth. Good barley, about 48 lbs. per buſhel; beſt ſamples, about 2 lbs. more; ordinary, 40 to 42 lbs. Oats, on an average of ſound grain, 36 lbs.; fine ſamples, 41 lbs.; ordinary, as low as 30 lbs. The number of good ſamples have been ſmall indeed.

It is the general opinion of every perſon converſant in the corn trade, that there is not a ſufficient quantity of grain in the country to ſupport the inhabitants till next crop, and that a conſiderable importation is neceſſary. Since the beginning of November, 70,000 quarters of wheat, and 50,000 quarters of oats, have been imported here. Only a few parcels of barley—ſay ſix hundred quarters. From the ſetting in of the froſt, no more foreign grain is expected this ſeaſon, except the cargoes upon the road. Conſiderable quantities are bought, which cannot be expected to arrive ſooner than April.

Smithfield has of late been well ſupplied. The general price of beef, ſinking the offal, 4s. 6d. per ſtone of 8 lb.; mutton, 4s. 10d. Retail prices—Beef and mutton. 6½d. and 7d. per lb.; veal, 7d.

The quartern loaf of bread is preſently ſold at 14d.; but, from the riſe of wheat and flour this week, muſt be advanced to 14½d. or 15d. Oat-meal is worth 28l. per ton, which is equal to 14 bolls and a quarter, as ſold with you.

The wheat ſeed is generally finiſhed; though in the wet lands of Eſſex and Hertford, ſome remains to be ſown. Ploughing is much behind.

Hay ſells from 4l. to 5l. 16s. per load, which is 18 cwt., or 90 ſtone, Scots weight. Straw from 1l. 18s. to 2l. 5s. per load, of 13¼ cwt. Potatoes and other garden ſtuffs are plentiful. The price of the former from 5l. to 8l. per ton, which is from 15d. to 2s. per peck, according to your meaſure. The quality is not good.

We have a ſevere ſtorm of froſt and ſnow, which, if it continues, will ſoon block up the Thames. The corn markets, in conſequence, experienced a conſiderable riſe. Dantzic wheat ſold on Friday as high as 110s. per quarter; and this day, flour has riſen 5s. per ſack. Some remarkably fine cattle were laſt week ſhewn in Smithfield, in conſequence of a premium being given by ſeveral noblemen and gentlemen.

ADDITIONAL SCOTS INTELLIGENCE.

Angus, Mearns, and Aberdeen Agricultural Report.

This diſtrict, in common with the reſt of the kingdom, has experienced a moſt inclement ſeaſon, and vegetation was at no time luxuriant. Our crops are therefore ſcanty, ſo far as trials have been made;

made; and as for the paſtures, they remained ſhort and open, without acquiring their uſual cloſe pile.

In general, hay may be conſidered as approaching to a medium crop; yet the price has advanced to an unuſual pitch. The average may be ſtated at 1s. per ſtone of 20 lb. Dutch weight.

The wheats, at one period, had a full appearance, but were afterwards daſhed to the ground, which prevented them from filling, and, in many ſituations, occaſioned the grain to ſpring. Wheat is, I apprehend, the worſt crop, and may be ſtated as one half deficient. There has been little brought to market; the price from 30s. to 45s. per boll of 4 Linlithgow firlots.

On the ſtripe of fine land which bounds this diſtrict with the ſea, oats may be taken at nearly two thirds of the uſual product, and bear and barley nearly in the ſame proportion. But, when we go to the hill diſtricts, they are much below what is ſtated; and the accounts are ſo various, that a concluſive opinion can hardly be formed. It is allowed, upon an average of the three counties, that oats will not yield 4 ſtone meal per boll. Thoſe raiſed upon the coaſt lands may be from 5 to 6 ſtones; ſome have even come to 7½ ſtones; but the quantity of the laſt kind is too trifling to merit notice.

In Angus, the price of barley, by the firlot of 32 Scots pints, is 25s. per boll. At Aberdeen, by their meaſure of 34 Scots pints, 28s. and advancing. Bear or bigg, 2s. to 4s. lower than barley. Oat meal, 30s. and 32s. per boll.

In all the hilly parts of theſe counties, and even in ſome parts near the ſea, the oats were froſted, and conſequently unfit for ſeed, which, I am afraid, will be an article much wanted.

Turnips and potatoes felt the effects of the bad ſeaſon equally with other crops. The firſt were put wet into the ground, and in ſome places did not *braird*, and in others were cut off by the *fly*, or ſnail; for farmers have not as yet aſcertained the name of the animal or inſect that deſtroys this root. The quantity of turnip food does not exceed one third of laſt year's.

The lateneſs of laſt Spring reduced the condition of lean ſtock ſo much, that they never got forward during the after ſeaſon; and prices have been from 15 to 30 per cent. below thoſe of laſt year. We have little demand at this time; yet the ſpirits and expectations of our dealers are now much raiſed, and a buyer will pay 20 per cent. more than would have been demanded two months ago.

Fat cattle were lately 7s. 6d. and 8s. per ſtone; but they have now fallen a trifle. There are fewer than uſual upon turnips, but every perſon is forcing forward to market as faſt as poſſible. As is uſual when turnips are ſmall in ſize, there is a general complaint that cattle fatten very ſlowly.

Obituary.

OBITUARY.

July 22d 1799.—At Athelſtaneford, Eaſt-Lothian, Mr JOHN THOMSON, farmer and fleſher in that place.

Mr Thomſon had arrived at the advanced age of 90 years, and, in the courſe of an extenſive and complicated buſineſs, had uniformly preſerved a fair and unimpeached character. He had riſen, from ſmall beginnings, to eminence in his profeſſion; and, at one period, his undertakings were more extenſive than any of his brethren out of the metropolis. Fifty years ago, under the patronage of the Gilmerton family, he ſet up a fleſh market in the village where he reſided; and his dealings as a middle-man, in the purchaſe of fat beaſts, ſheep and lambs, which were reſold to the Edinburgh and weſt country fleſhers, were widely extended over all the county of Eaſt Lothian. When old age arrived, he wiſely contracted his buneſs; but he retained his knowledge and accuracy to the laſt; and, from the natural ſtrength of his conſtitution, there was cauſe to believe, that, old as he was, a ſucceſſion of days awaited him, had not an unlucky fall in his room hurt him ſo much as to haſten his diſſolution.

Mr Thomſon was much reſpected in ſociety, eſpecially in his own neighbourhood, which was a ſure proof of the goodneſs of his character. When not engaged in buſineſs, his chief amuſement lay in playing at whiſt, at which game he believed himſelf to be eminently ſkilful. In a word, he was a man who had few or no enemies, and poſſeſſed more friends than moſt of his contemporaries.

At Little Harwood, Lancaſhire, Mr A. FRANKLAND, farmer.

At Waltham on the Woulds, Mr BURTON ſenior, farmer.

At Crowmills, Leiceſterſhire, Mr JOSEPH LEWIS, grazier.

At Eaſt Dereham, aged 73, Mr H. WELLS, a celebrated kitchen gardener.

At Ugſtone, near Haddington, Mr THOMAS HOWDEN, an extenſive and reſpectable farmer.

At Carniehaugh near Gifford, Eaſt Lothian, Captain JOHN CARFRAE, of the Breadalbane Fencibles, and farmer there. Captain Carfrae had, at an early period of life, entered into the military line, and ſerved in Germany during the ſeven years war. He was the intimate friend of General Harris, the conqueror of Seringapatam, with whom he acted as an officer in the 5th regiment of foot, then commended by Lord Percy. He afterwards devoted his attention to rural affairs till the year 1778, when he accepted of a commiſſion in the regiment raiſed by the Duke of Hamilton, and commanded by General Francis M'Lean. At the peace of 1783, he returned to his farm, which, during his abſence, had been managed by his ſiſters and friends. Experienced officers being much wanted when the fencible regiments were raiſed in 1794, he was

prevailed

prevailed upon to accept a company in the 3d battalion of Lord Breadalbane's regiment. In Ireland, the ſervice was too ſevere for his conſtitution, which laid him under the neceſſity of viſiting his native land, in hopes that a change of air might be uſeful; but, alas! it was too late.

Captain Carfrae poſſeſſed all the ſocial qualities in an eminent degree, and was greatly beloved and eſteemed by his numerous friends. He was a good neighbour, an excellent companion, charitable to the poor, and much reſpected by all who had the pleaſure of being intimately acquainted with him.

At Edinburgh, Dr JOSEPH BLACK, one of his Majeſty's phyſicians for Scotland, and profeſſor of Chymiſtry in the Univerſity of Edinburgh.

The ſcience of Chymiſtry being intimately connected with Agriculture, it gives us pleaſure to learn, that an account of Dr Black's ſtudies will be given by a near relative, thoroughly qualified to judge of what merits the attention of the public.

NOTES to CORRESPONDENTS.

The Rural Inquirer, No. I., to be regularly continued, will be given in our next, together with *Letter Second from a Farmer upon a tour through England, to his friend in Edinburgh.*

Memoirs of *Mr Bakewell*, the celebrated breeder of cattle and ſheep, are in hand.

Materials are wanted for completing an account of *Scotiſh Huſbandry* at the union of the two kingdoms. A publication of Lord Belhaven at that period, is ſaid to throw much light on the ſubject. Any gentleman who has ſuch a pamphlet in his poſſeſſion, will confer a favour upon the publiſher, by indulging him with a reading of it.

A valuable eſſay upon the moſt proper method of *winning hay*, will be inſerted in our next number.

The publiſher is exceedingly ſorry that this number has unavoidably been delayed for a few days after the time fixed for publication. In future, every attention will be beſtowed to ſerve the public regularly.

The ſecond number will be publiſhed on Monday the 14th of April.

Several valuable articles of intelligence, &c. from our correſpondents, are unavoidably left out of this number for want of room, although an *additional half-ſheet* has been added.

It is particularly requeſted, that the Communications for our ſecond number may be forwarded at fartheſt by the 19th of March, and articles of Intelligence by the firſt of April.

*** From the great advance upon paper ſince the *Proſpectus* was firſt publiſhed, the publiſher is under the neceſſity of raiſing the price of the Magazine to 2s. each number, and 3d. more when ſent by poſt. This number is, however, charged at the price ſpecified in the *Proſpectus*.